



# ***Headquarters U.S. Air Force***

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***Integrity - Service - Excellence***

## **GCSS-AF Customer & Vendor Conference 21 November 2003**



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# ***Agenda***

- 
- 0700-0800: Registration and Continental Breakfast**
  - 0800-0815: Welcome by Ms. Debra Haley and Opening Remarks by AF CIO, PEO and AFMC/IT**
  - 0815-0930: GCSS-AF Update, Weekly GCSS-AF Status with CIO and PEO, | Lt Col Joe Besselman, Lt. Col Dan Hausauer, Eric Maass, Joe Sneyd**
  - 0930-1045: Current Technical Direction and Update, Part 1, John Wunder**
  - 1045-1100: Questions from Customers and Industry**
  - 1100-1130: Break and Working Lunch**
  - 1130-1150: Current Technical Direction and Update, Part 2, John Wunder**
  - 1150-1230: Vendor Relations & Product Interest for GCSS-AF, Dr. Will Tracz**
  - 1230-1250: Break**
  - 1250-1415: GCSS-AF Outreach Training Update, Paul Montague**
  - 1415-1530: Building Clonable J2EE Applications, Mike Acton**
  - 1530-1600: Questions and Discussion, Wrap-up**
-



# **GCSS-AF Overview & Status**

**GCSS-AF Customer & Vendor Day  
21 November 2003**

**Lt Col Joe Besselman  
Lt Col Dan Hausauer  
Eric Maass  
Joseph Snell**

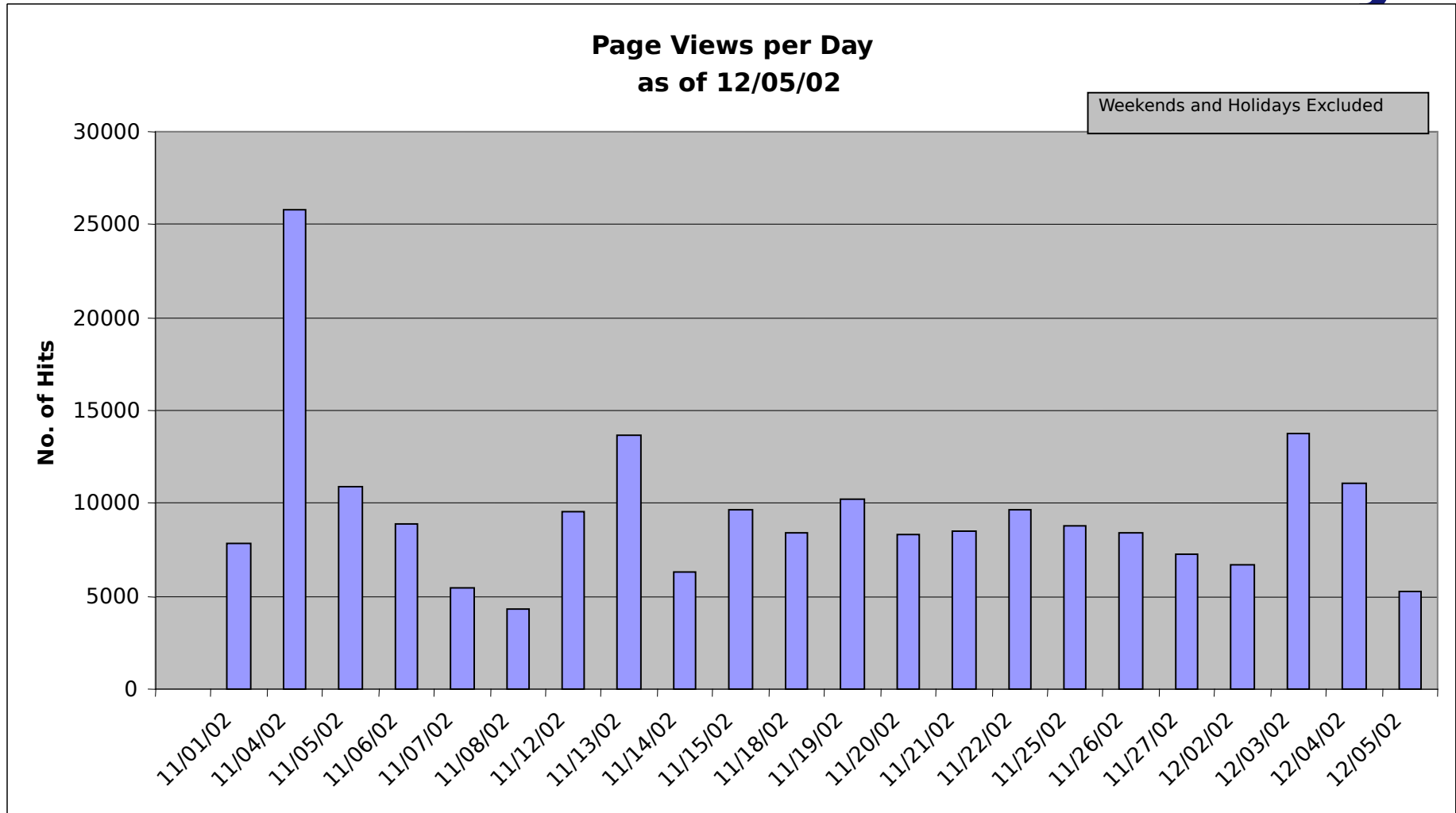
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# ***GCSS-AF Page Views Per Day***

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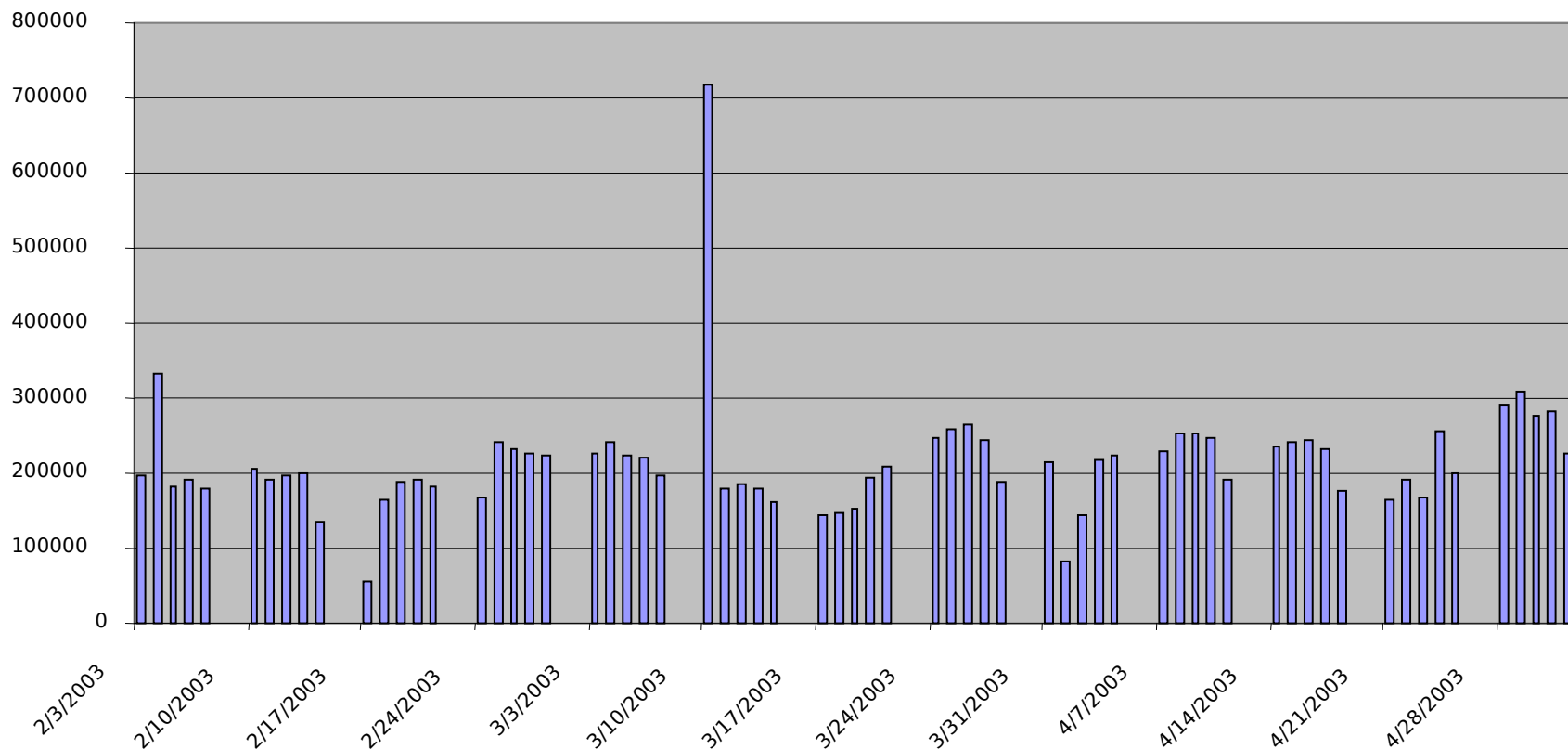




# GCSS-AF Page Views *Per Day*

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Page Views per Day  
Quarter Ending 03 May 2003

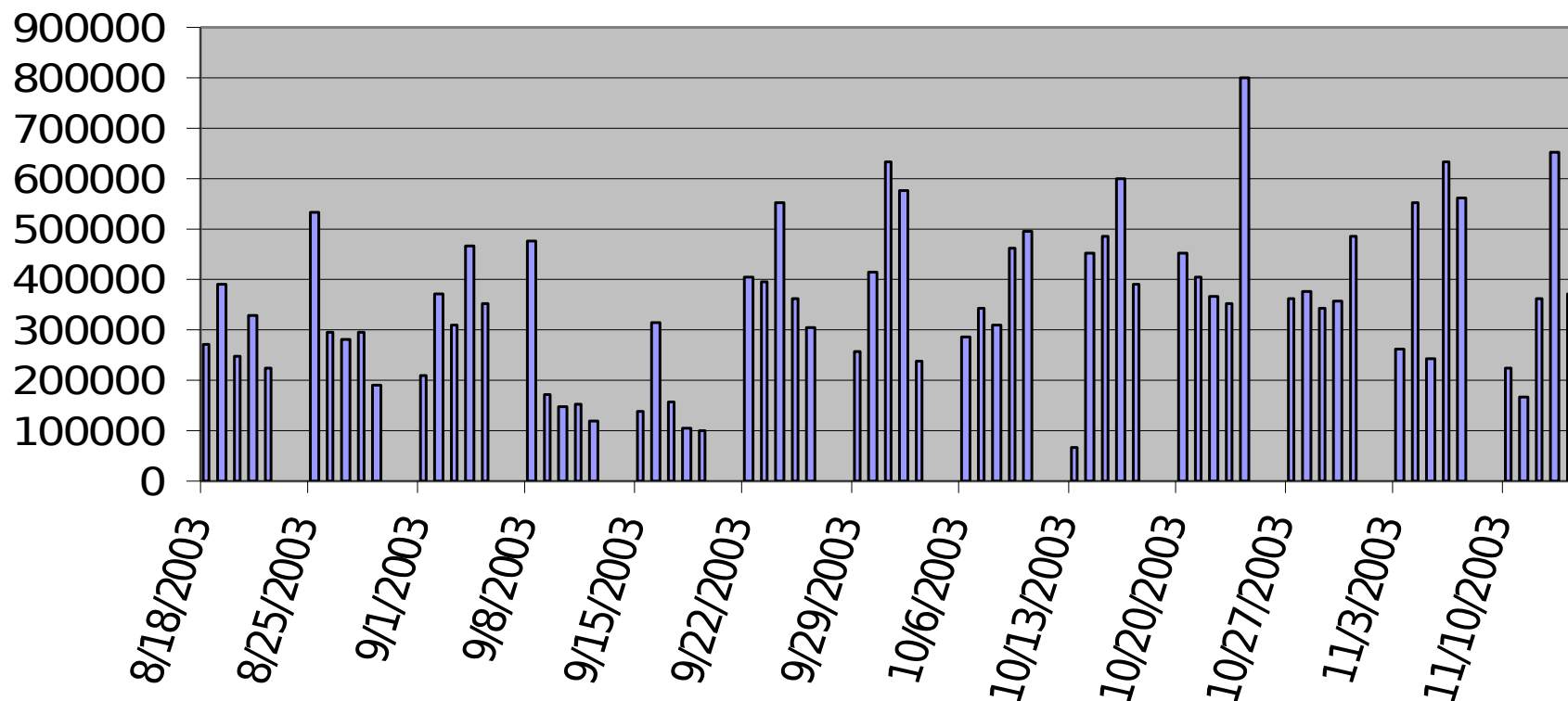




# ***GCSS-AF Page Views Per Day***

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Page Views per Day  
Quarter Ending 15 November 2003

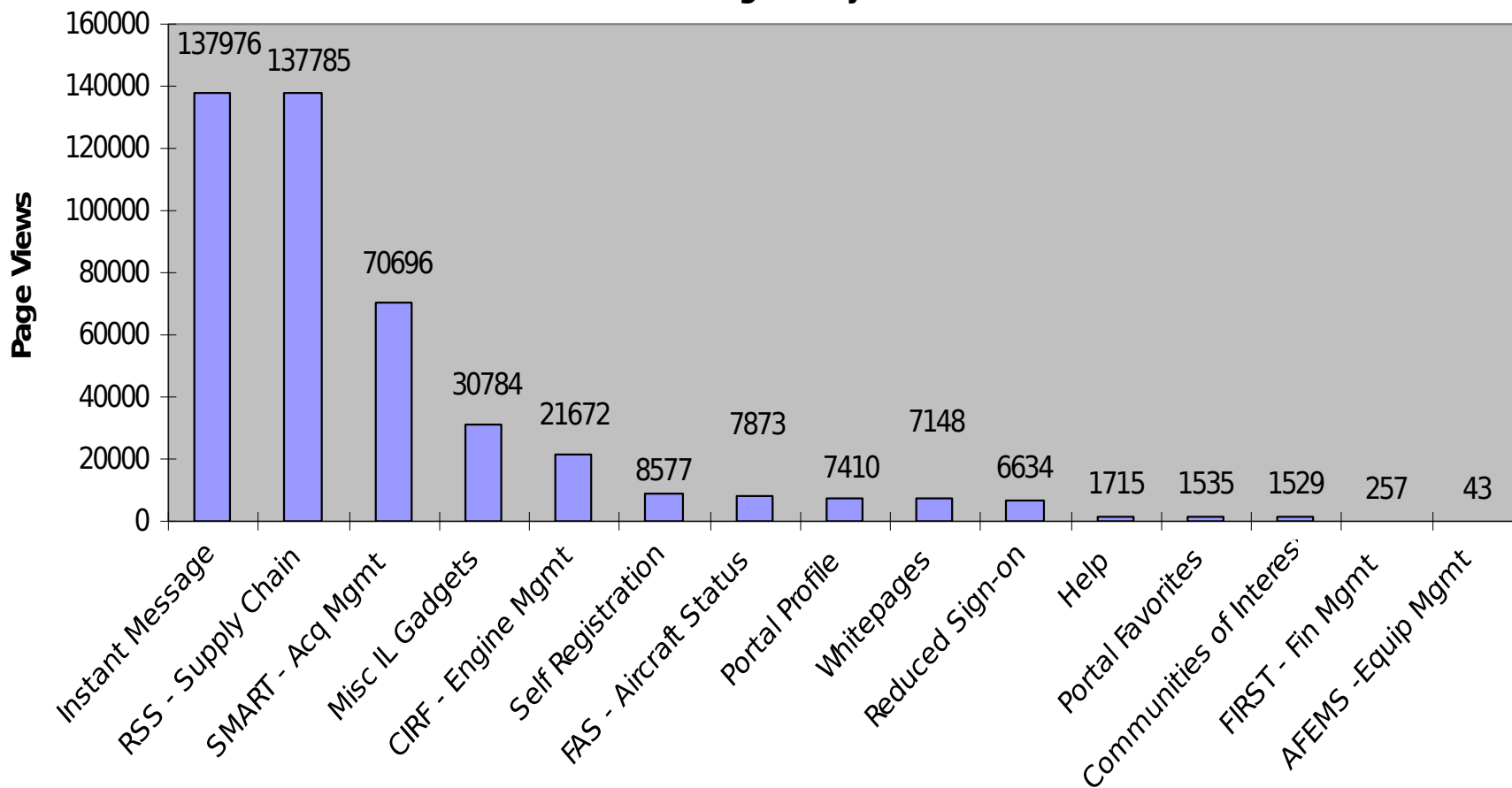




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# GCSS-AF Top Capabilities

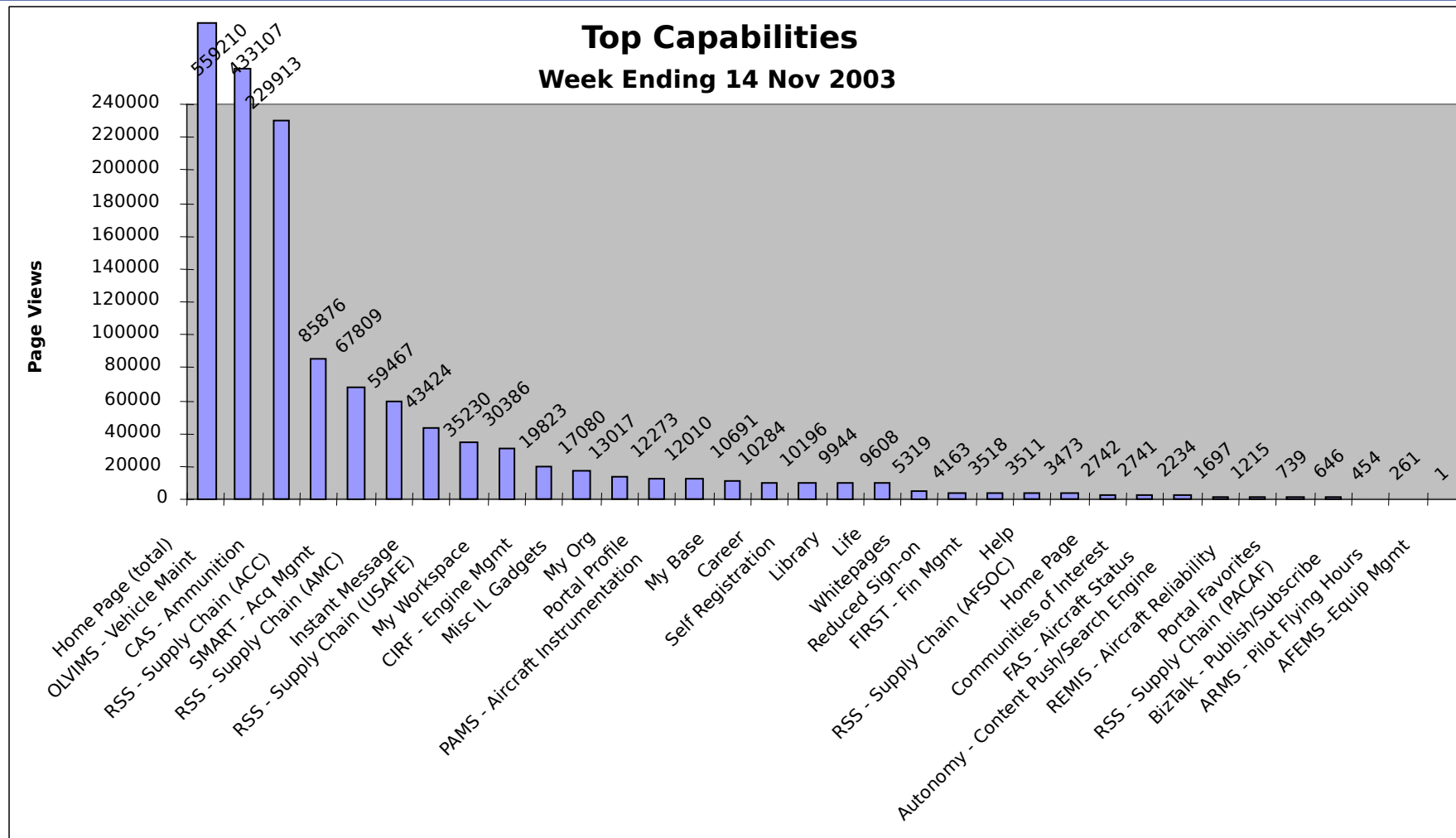
Top Capabilities  
Week Ending 03 May 2003





# GCSS-AF Top Capabilities

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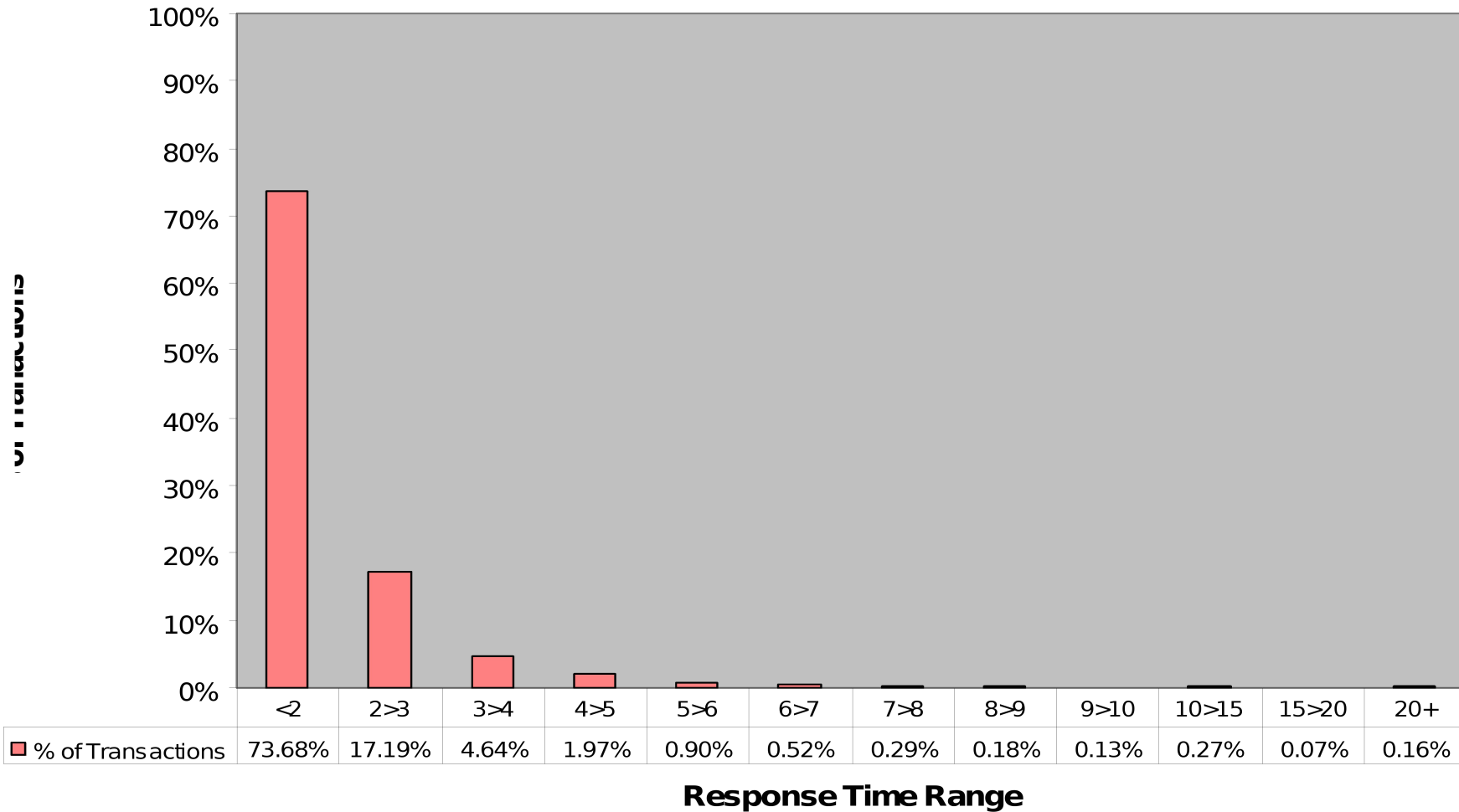




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# OLVIMS Response Time

OLVIMS Transaction Response Times Percentages 19 Oct - 25 Oct 03 AF Wide

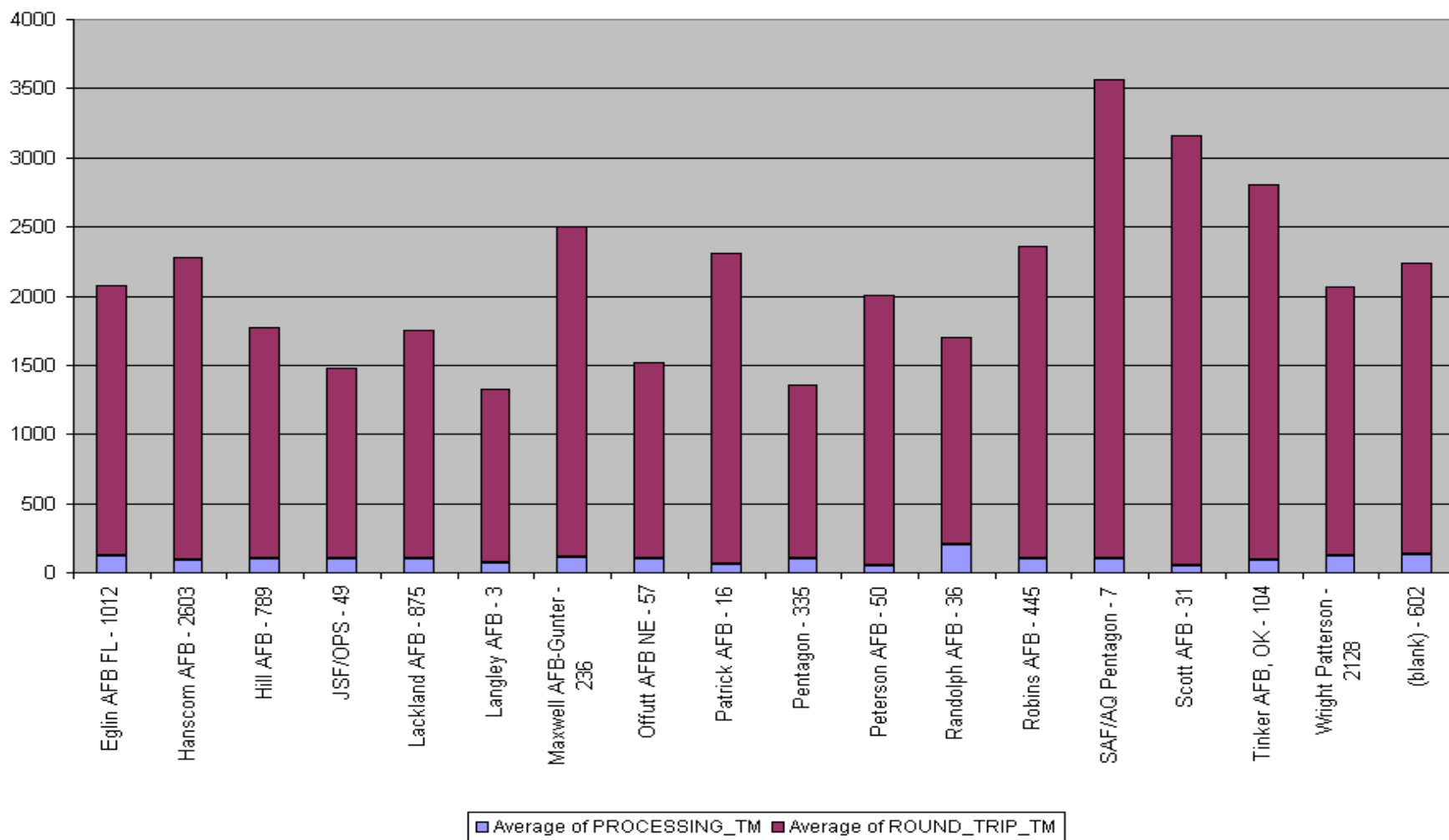




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# SMART Response Times by Base in milliseconds

3 - 14 Oct 03, Number of Samples: 12,776

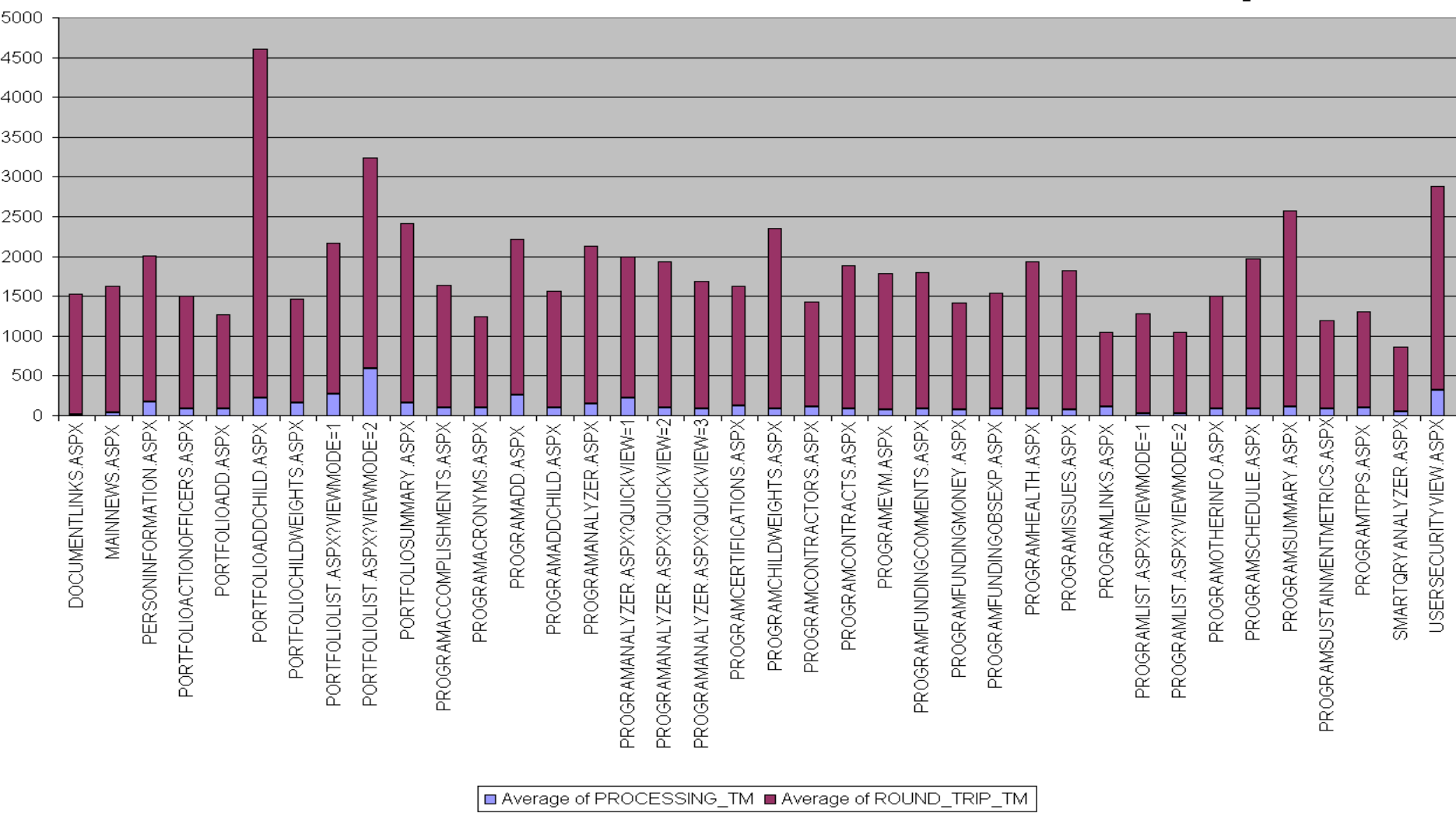




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# SMART Response Times by Function in milliseconds

3 - 14 Oct 03, Number of Samples: 12,776

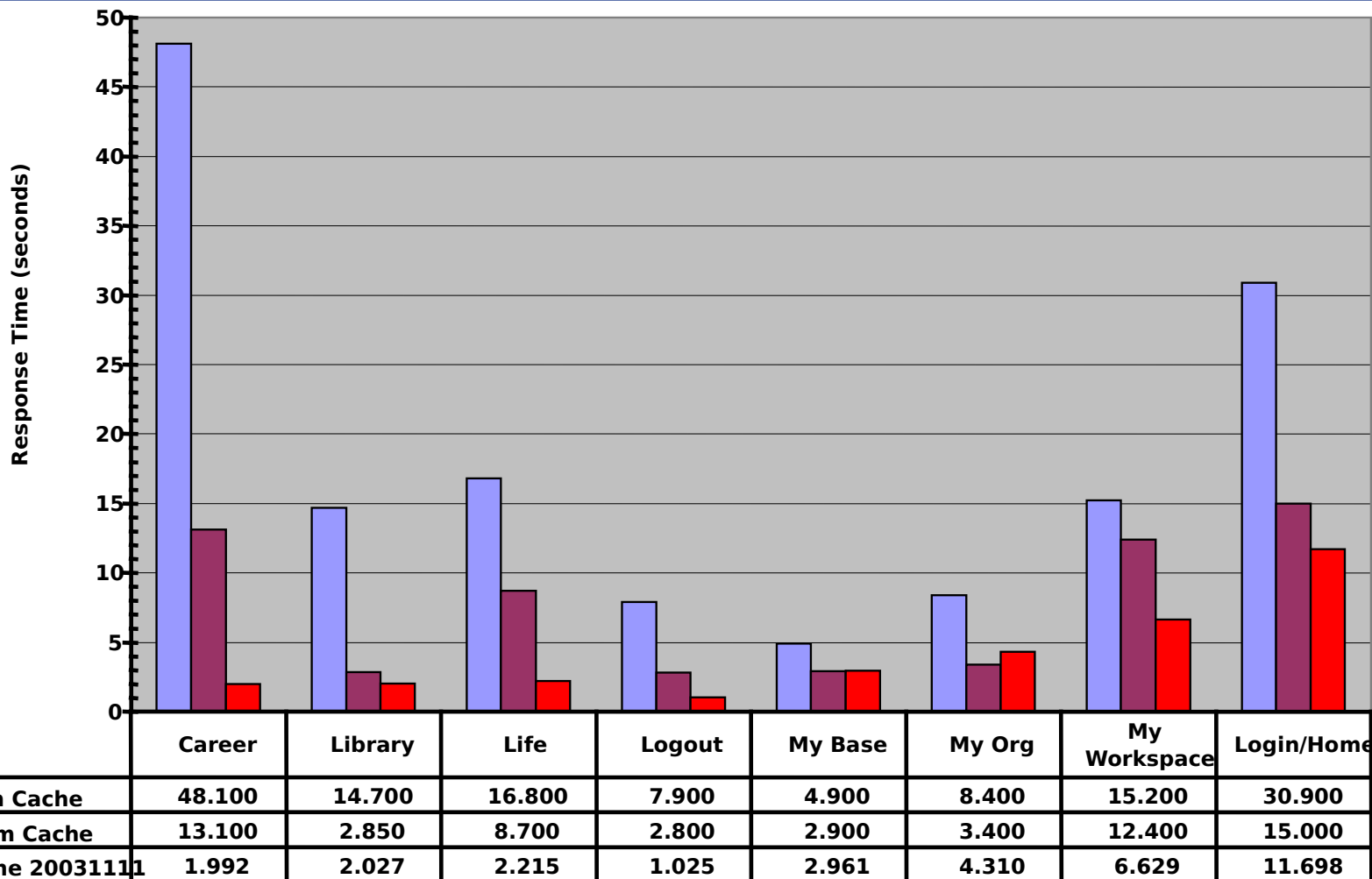




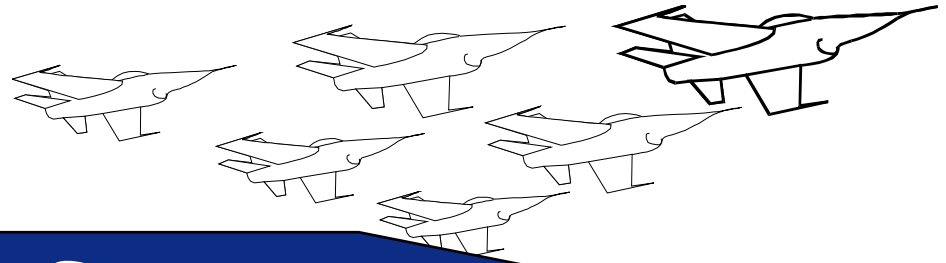
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# Portal Performance

## 11 November 2003



# ***Business Areas***



## ***Support* Combat Support**

Acquisition	Chaplain	Civil Engineering	Communications	Comptroll	er Contracting	Health Services	Legal	Logistics Plans	Maintenan	ce Materiel Management	Munitions	OSI	Personnel	Public Affairs	Quality and Manpower	Safety	Security Forces	Services	Space Support Teams	Supply	Transportation
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**640+ Systems**

**250+ Locations Worldwide**

**>20,000 concurrent Warfighters on-line**

**300,000+ Warfighters/Users Worldwide**



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# ***Why GCSS-AF?***

## ***AF Business Benefits***

- **Enterprise Consolidation of Capital Purchases**
  - Hardware & Software Products & Maintenance
  - Product Agnostic Mixed with Economic Pragmatism
- **Common production platforms: Fixed Content (web sites) and Data Warehousing**
- **Operations and Maintenance Labor & Expertise**
- **Enterprise Engineering Enabling:**
  - Interface Standards and Consolidation, Common Security Layer, Presentation (Portal) Standard and Consolidation,
  - Certification Foundation for All Functional Apps: SSAA, CoN, C4ISR, -- "Plug into GCSS-AF"
  - Enterprise Tuning / Load Balancing

***i n t e g r i t y - s e r v i c e - e x c e l l e n c e***



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# ***Recent Accomplishments***

- **.COM Access in partnership with DISA**
- **Self-registration / User Profile**
- **Autonomy**
- **On-Line Tutorial ... more are coming**
- **Org/Base Information Architecture update**
- **Portal spirals / maintenance releases**
- **Akamai: AF LINK, HERBB, and Weather site**
- **Biztalk deployment**
- **SMART & CAS deployments**
- **CINC 57 Munitions Pilot/Web Service**
- **User Data Web Service**
- **Several training sessions**



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# ***In Production or Very Close***

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- **Portal Index**
- **AFIM policy and validation of fixes**
  - AFIWC has validated some of them...awaiting remainder
- **Aircrew Resource Management System (ARMS)**
- **REMIS & PAMS**
- **Access Manager upgrade**
- **Hardware Compression -- Appcelera**



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## **FY04 AF-CIO Expectations**



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# ***FY04 Key Goals***

## ***User Perspective***

- **April 04: All airmen have an AF Portal account**
- **User customizable workspace**
  - Airmen's virtual desktop & "one-stop shop"
- **Single sign-on - number one user request**
- **Reengineered forms including Officer/Enlisted Evaluation processing**
- **AFPC Secure Applications (32 apps including vMPF, vRED, etc)**
- **myPay (LES, W2, Withholding, etc)**
- **Deployment Readiness System**
- **Additional self-service capabilities**
  - LeaveWeb, Defense Travel System, others
- **Syndicated content (news, weather, sports, money)**
- **Web based e-mail and desktop application integration**
- **GCSS-AF NIPRNet & SIPRNet with common look and feel**
- **CAC/PKI**



# ***Enablement Criteria***

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- **Outreach (Portal and Applications)**
  - **Performance & System Reliability**
  - **User friendly navigation & enhanced look and feel**
  - **Seamless content publishing**
  - **Seamless information architecture changes**
  - **Help Desk, Tiered Administration, Role Management**
  - **Robust self registration**
  - **Content discovery AF-wide**
  - **Disaster recovery plan**
-

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***I n t e g r i t y - S e r v i c e - E x c e l l e n  
c e***

# **FY04 Plans**



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# ***FY04 “Killer Applications / Priorities”***

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- **CMS PureEdge: web forms & OES/EES workflows**



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# ***CMS PureEdge Update***

## ■ **Technical Interchange Meeting**

- Held in Montgomery (11/12 – 11/14)
  - No Showstoppers Identified Related to GCSS Integration
  - Application LDAP Dependencies to be Determined
    - Schedule Impact Due to Application Changes
- Developed Deployment Configuration / Integration Approach
- Pre-production load to begin 1 Dec 03
- Re-worked Deployment Plan / Schedule Based on Technical Impacts
  - OES / EES Customer Acceptance Testing to continue in parallel until IBM has stood up enclave in Montgomery
- **Telecon held between SPOs and CIO on 19 Nov to chart strategic direction**



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# **FY04 “Killer Applications / Priorities”**

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- CMS PureEdge: web forms & OES/EES workflows
- **Reduced Sign-On (RSO)  
integration with**
  - myPay ... no more hard copy LESs
  - AFPC Secure (vMPF, vRED, etc)



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# ***Outreach - myPay Update***

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## ■ **myPay**

- GCSS-AF updating RSO Migration guide for DFAS implementation – DFAS vs. AF managed effort
- DFAS investigating technical implementation
  - Pass encrypted SSAN in header, provide decryption algorithm to myPay
    - Less traffic on WebSEAL junction
  - Use UDWS to pass SSAN
    - myPay concerned with performance impact
    - LMMS conducting performance analysis
    - No decryption code provided to myPay





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# ***Outreach - AFPC Secure Update***

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## ■ **AFPC**

- RSO Heavy Enabled in Pre-Production
  - UDWS Issues Resolved
  - Pre-Production Junction Functional
  - AFPC reporting Pre-production integration successful
    - Testing to support Jan 04 Production date



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# FY04 “Killer Applications / Priorities”

- CMS PureEdge: web forms & OES/EES workflows
- Reduced Sign-On (RSO) integration with
  - myPay ... no more hard copy LESs
  - AFPC Secure (vMPF, vRED, etc)
- **Web-based email pilot**
- **Workspace customization**
- **Deployment Readiness System**
- **Syndicated Content Pilots: Aviation Week, Jane’s, eye candy**
- **True Single Sign-On: AD/AM integration, 4<sup>th</sup> QTR**
- **GCSS/GCCS Integration & SIPRNET**



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# ***Consensus Leaving July GCSS/GCCS Summit***

- **Field common arch across C2 and CS domains**
  - Embody core architecture with preferred products, where possible & makes sense
    - Exploit economic efficiencies ... commodities
    - Minimize integration costs
    - Provide common technical foundation to ease integration
- **Allow deviations based on:**
  - Operational necessities
  - Business cases
  - Emerging technologies



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# **FY04 “Killer Applications / Priorities”**

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- **PureEdge: Forms including Officer/Enlisted Evaluation System**
- **Reduced Sign-On (RSO) integration with**
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- **True Single Sign-On: AD/AM integration, 4<sup>th</sup> QTR**
- **GCSS/GCCS Integration & SIPRNET Strategy**
- **Public Key Enablement of GCSS-AF**



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# ***PK-E and User Authentication***

- **Currently, username/password is only supported method of user authentication to the AF Portal**
- **After PK-E is complete, the following methods of user authentication will be supported**
  - Username/Password
    - Will require approval from AF CIO beyond March 04
  - PKI Based Authentication
    - CAC based certificates, DoD PKI Software Certificates, ECA certificates for contractors outside the firewall will all be supported
- **Method of user authentication (uid/pw or Cert) will be passed to back end applications**
- **Certificate Information Will Be in HTTP Header**
  - E.g. Subject, ValidFrom, ValidTo, Serial Number



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# ***PK-E Benefits and Schedule***

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- **More Secure**
  - Two Factor Authentication – Something you have (CAC) and Something you know (PIN)
- **Reduced Administration**
  - Fewer Password Reset Calls to Help Desk
- **Warfighter gains access to personalized portal content and apps using nothing but CAC and PIN**
- **PKE is streamlined for applications that migrate to AF Portal**
  - Reduced Sign On
  - Saves Individual Application expense of separate, full PKE effort
- **Standards Based**
  - X.509 Certificates, SSL
- **Schedule**
  - First Phase (Phase I) allowing PK-E from the NIPRNET to GCSS-AF will be available in mid January 2004



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# ***FY04 “Killer Applications / Priorities”***

- PureEdge: Forms including Officer/Enlisted Evaluation System
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- Public Key Enablement of GCSS-AF
- **2<sup>nd</sup> Production Site at WPAFB**



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# ***GCSS-AF Multi-Site Architecture***

## ■ **Multi-Site Architecture**

- Will support Highly Available Infrastructure for:
  - Security Services
    - WebSEAL auto redundant, HA
    - LDAP auto redundant, HA
    - LDAP master promotion
    - Policy Server replication, promotion, HA
  - Network Architecture
    - GSS, CSS - HA
  - Fail-over and Redundancy
- Will incorporate routing for sites:
  - Traffic for Montgomery applications
  - Traffic for Montgomery portal
  - Traffic for Dayton applications
  - Traffic for Dayton portal





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# ***Second Site: Current Activities***

- **28 Server Footprint in DISA (includes SunFire15K)**
- **AFMC Content Management Solution (CMS)**
  - Currently Hosted in Dayton NOSC
  - Adding BV Content API (CAPI) Capability
  - Planned to be Re-hosted at GCSS-AF Dayton (in DISA)
    - Content Preview Portal (CPP) and Content API (CAPI) comprise the majority of the AFMC CMS
    - Target Fielding Date in GCSS-AF Dayton Enclave: Jan 16
    - Planning Work is Underway
      - Project Plan and Schedule
      - Hardware Architecture Identified
      - Software Services Identified
      - Software CM Packaging being Currently Addressed
      - Operational Training and Documentation Deliverables



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# ***Second Site: Future Activities***

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- **GCSS-AF Services** **Apr 04**
  - TAM 4.1 Security Subsystem
  - Oracle 9i DB Server Cluster
  - WebSphere MQ 5.3
- **AFP Hosting** **Aug 04**
  - AFP Second Site
- **Application Hosting** **Apr 04**
  - WAS 4/5
  - Oracle 9iAS
- **COOP Application Hosting** **Apr 04**
  - Applications Hosted in Both Montgomery and Dayton



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# ***FY04 “Killer Applications / Priorities”***

- **PureEdge: Forms including Officer/Enlisted Evaluation System**
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- **2<sup>nd</sup> Production Site at WPAFB**
- **End-to-End Measurement**



# ***What is End-to-End Performance?***

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## ■ **End-to-End Performance**

- Deals with the performance concepts surrounding data transaction between the end client and backend origin servers.
- Typically results in quantitative measurements such as:
  - Time: elapsed time between a client-side request and when data is delivered back to the requesting client.
  - Bandwidth: resources of bandwidth utilized at sections of, or throughout the entire, delivery route.
  - Rendering: encompassing data segmenting and computing resources required at delivery to render the response as useful information.



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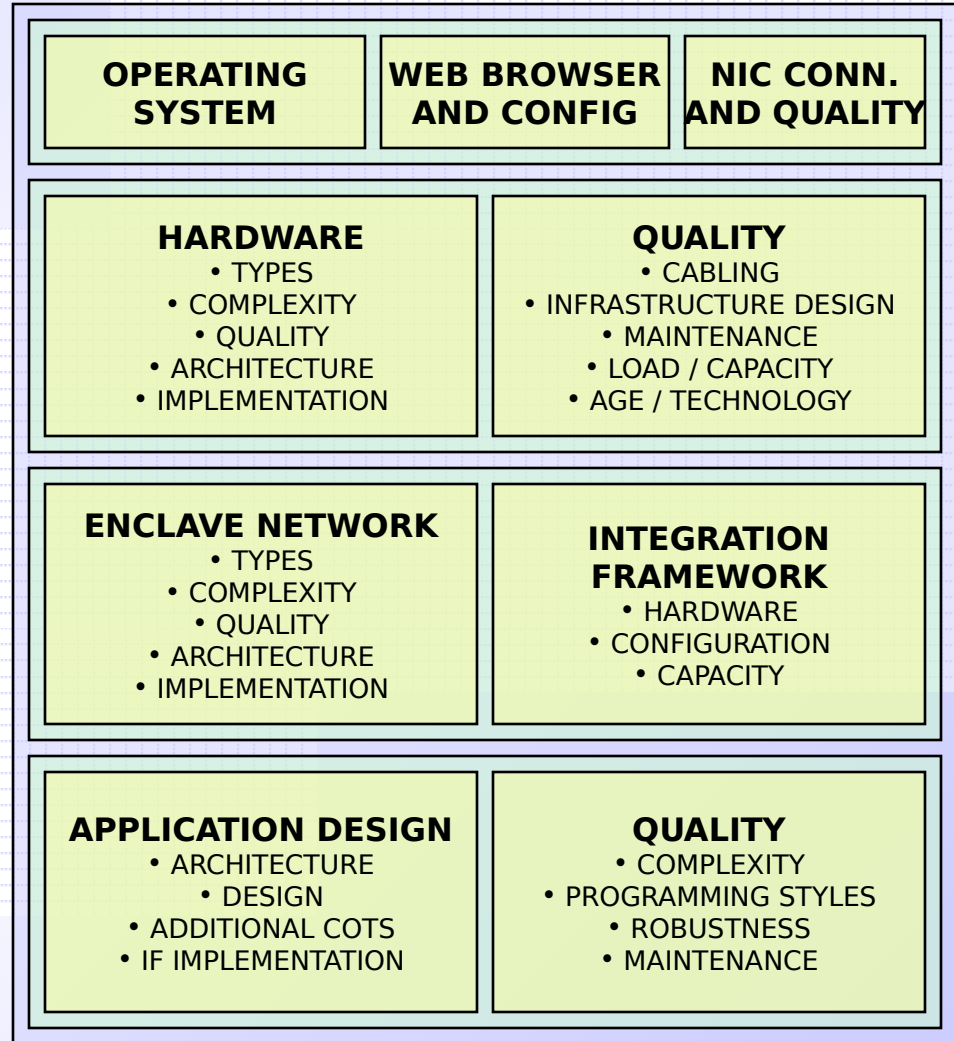
# ***End-to-End Performance with GCSS-AF Visual Layer***

**CLIENT COMPUTING  
ENVIRONMENT**

**BASE NETWORK  
INFRASTRUCTURE**

**GCSS-AF ENCLAVE  
INFRASTRUCTURE**

**GCSS-AF MISSION APPLICATIONS**





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# ***End to End Analysis for GCSS-AF***

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## ■ **Implemented FineGround Networks AppScope**

- This product allows non-invasive measurement of end user Quality of Service (QoS) data such as response time, server response time, IP/URL data, and other information that is valuable to calculated conclusive results.

## ■ **Developing PMA analysis tool**

- This tool serves as an interim way to dissect and correlate raw AppScope data.
- This will eventually be replaced by the capabilities of the COGNOS post analytical processing tool.

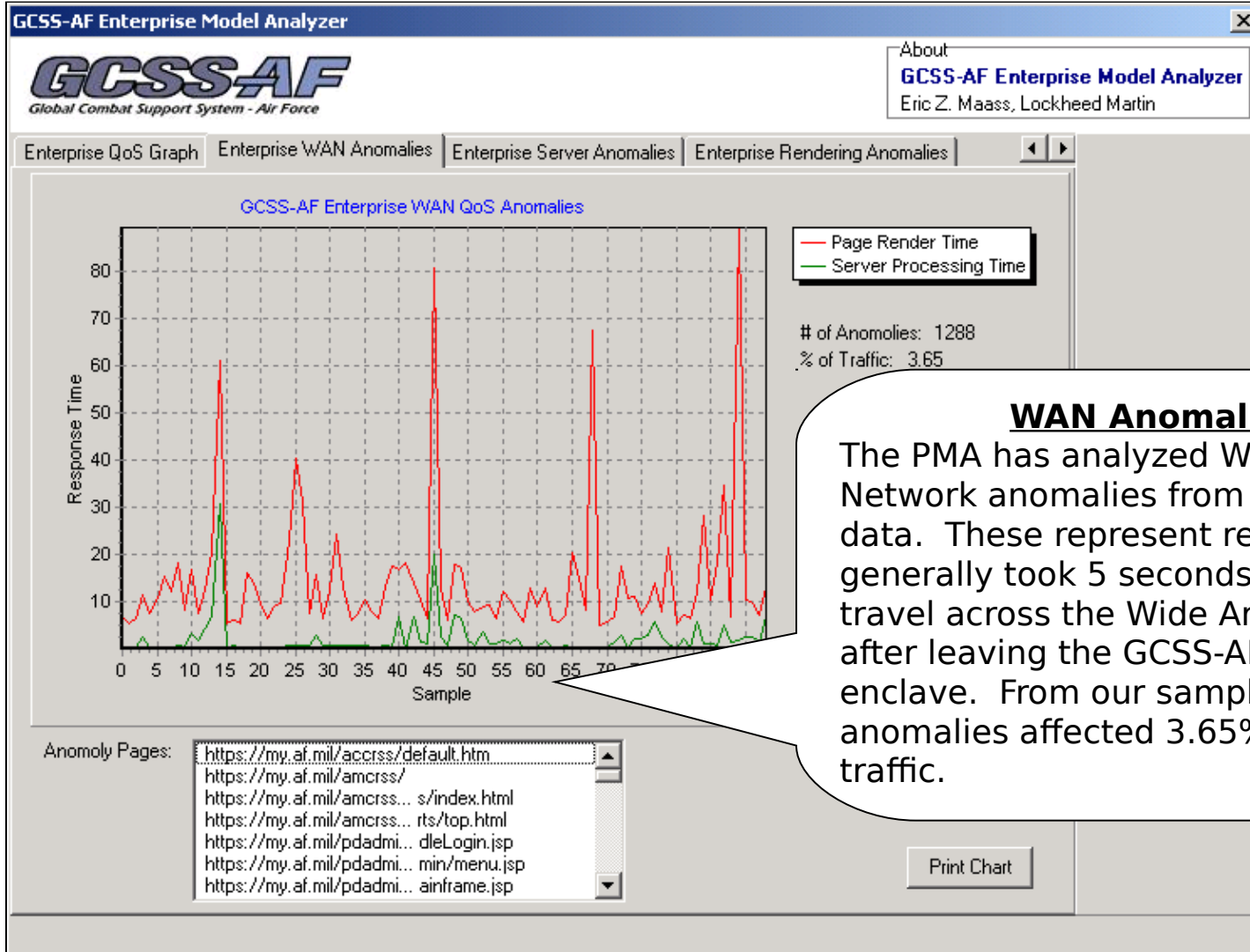
## ■ **Network Reference Architecture**

- Performing research of the DISA and AF network infrastructures to allow high-level view of aspects that may impact end user QoS.



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# PMA WAN Anomalies Analysis



## WAN Anomalies

The PMA has analyzed Wide Area Network anomalies from our sample data. These represent requests that generally took 5 seconds or longer to travel across the Wide Area Network after leaving the GCSS-AF server enclave. From our sample set, WAN anomalies affected 3.65% of the total traffic.



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# ***Other Activities***

- **CINC 57 pilots**
  - 8 elements comprise pilot
  - CINCs require approx. 80 elements in entire requirement
- **Other Reduced Sign-Ons - 50+ in process**
  - Approximately 40 in production
- **Risk mitigation pilot**
  - Content Management Systems
- **Other technologies**
  - Akamai
  - Blades
  - Wireless
- **AF Knowledge Services integration**





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# What has been the Focus of AFKS?

Plan Source Deliver Repair Dispose

Planning, Financial Management, Human Resources, Installations

Requirements Determination

- Am I accurately forecasting demands?
- Do Forecasts Meet Real World needs (Peacetime and Wartime)

Procurement

- Do existing contracts satisfy forecasted

Materiel Management (Supply)

- What is my current and future inventory

Materiel Distribution And Shipping

- What is the average shipment time by

Depot/Base Maintenance Planning

- What aircraft and assets do I

Depot/Base Maintenance Execution

- What weapon systems have the lowest and

Disposition And Reutilization

- What disposal trends exist by vender, part, SRAN, etc?
- Am I getting credit for my recyclables?

▪ D200A/CIRS Inputs

- D002A
- D035A
- D035C
- D035E
- D087H
- G004L
- G019C
- G072D
- J041
- OSVCS
- W001
- G009
- D075
- D200
- ABCS

	Completed	In-Work
Information Sources	24	13
Record Layouts	253	400
Aircraft Maintenance and Utilization	4	1
Supply Management	4	5
Inventory and Ordering	13	1
Financial Management	3	
Acquisition/Contracting		6

\* Frequency varies from near real-time status, utilization and maintenance data to quarterly requirements forecasts

- SCS
- D002A
- AFEMS

- OLVIMS
- CAMS
- G081

Work/Planned

Financial Management - H054, H118, D035J, CBAS, GAFS, CPAS, ABSS

• Have my overhead costs increased in SMAG/DMAG? If so, how much and why? Are SMAG and DMAG charging the prices they established for the year of execution? Were prices computed correctly? How accurate are my bill amounts compared to catalog pricing information? What is the financial impact of these potential pricing/billing errors?



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# ***AFKS Capabilities on the Horizon***

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- **Data Mining**
- **Balanced Scorecard**
- **Data Visualization**
- **MetaData Repository**
- **Automated Metadata Capture from Legacy**
- **Data Quality Profiling**
- **Content/Text Mining**
- **Modeling and Simulation/Course of Action**



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# ***Other Activities***

- **CINC 57 pilots**
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  - Akamai
  - Blades
  - Wireless
- **AF Knowledge Services integration**
- **Air Force Portal Status**



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# AFP Performance Improvement Status

Expected Decrease

5 seconds

## Hotspot Analysis (6 Oct - 15 Dec (was 1 Dec))

- Hotspot analysis focused on performance of production portal pages, communities of interest (COI), and publishing center portal (used to publish links and light content to the portal)
- Accomplishments to date
  - Stand-up of production mock-up environment for hotspot analysis by BV at their main facility in Redwood CA (no cost to AF)
  - Hot spot analysis completed on all top level pages and communities of interest
  - Improved average top level page response times from approx. 18.5 seconds to 5-7 seconds
  - Change measurements to include Loadrunner scripts (firewall in) for new releases and Appscope (firewall in + end to end) for production performance
- Still In-Process
  - Hot spot analysis of the Publishing Center Portal
  - Implementation of identified improvements to COIs
  - Completion of improvements for top level page response times
  - Reduction of page response times to 5 seconds
  - Max time to render any page = 8 seconds

2 seconds

## Design & Architecture Review (1 Dec - 15 Feb (was 1 Feb))

- Further reduce average page response times to 2 seconds
  - Analysis of user interaction
  - Document recommendations
  - Review tasks for best solutions
  - Implement chosen solutions

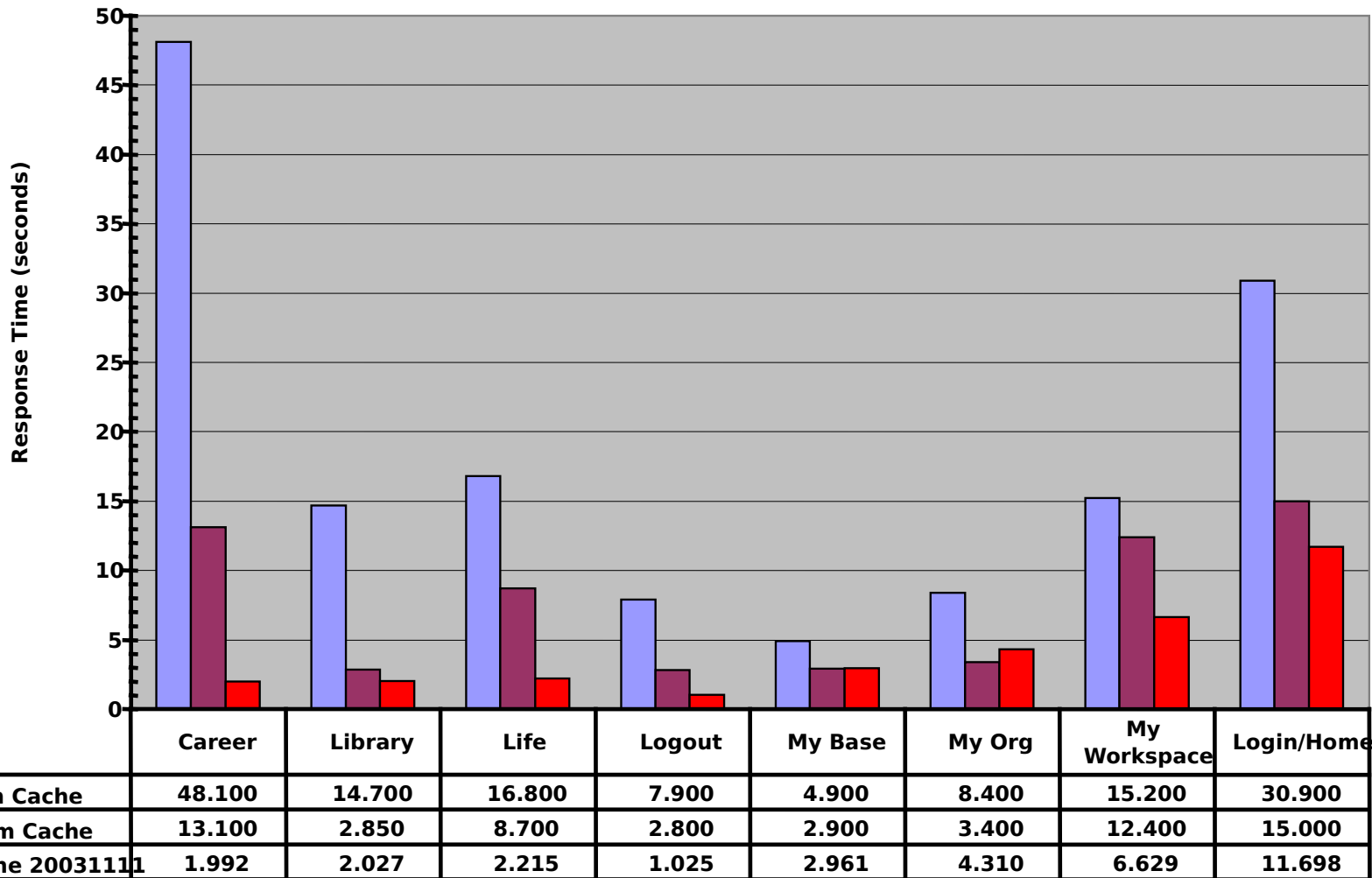
Performance Improvements Over Time



# Post Category Cache Performance Test

## 11 November 2003

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# ***AFP Maintenance Status***

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- **Priority focus on performance releases over maintenance releases**
- **Maintenance releases ready for rollout:**
  - User selectable customization of content on the workspace
  - User password reset
  - Fixes and enhancements related to presentation of content on the portal
  - Scheduled for rollout late Nov thru mid-Dec
- **Capability releases in-development**
  - Importing browser favorites into portal favorites
  - User profile enhancements
  - Additional enhancements for content presentation
  - Scheduled for rollout mid-Dec thru late Jan



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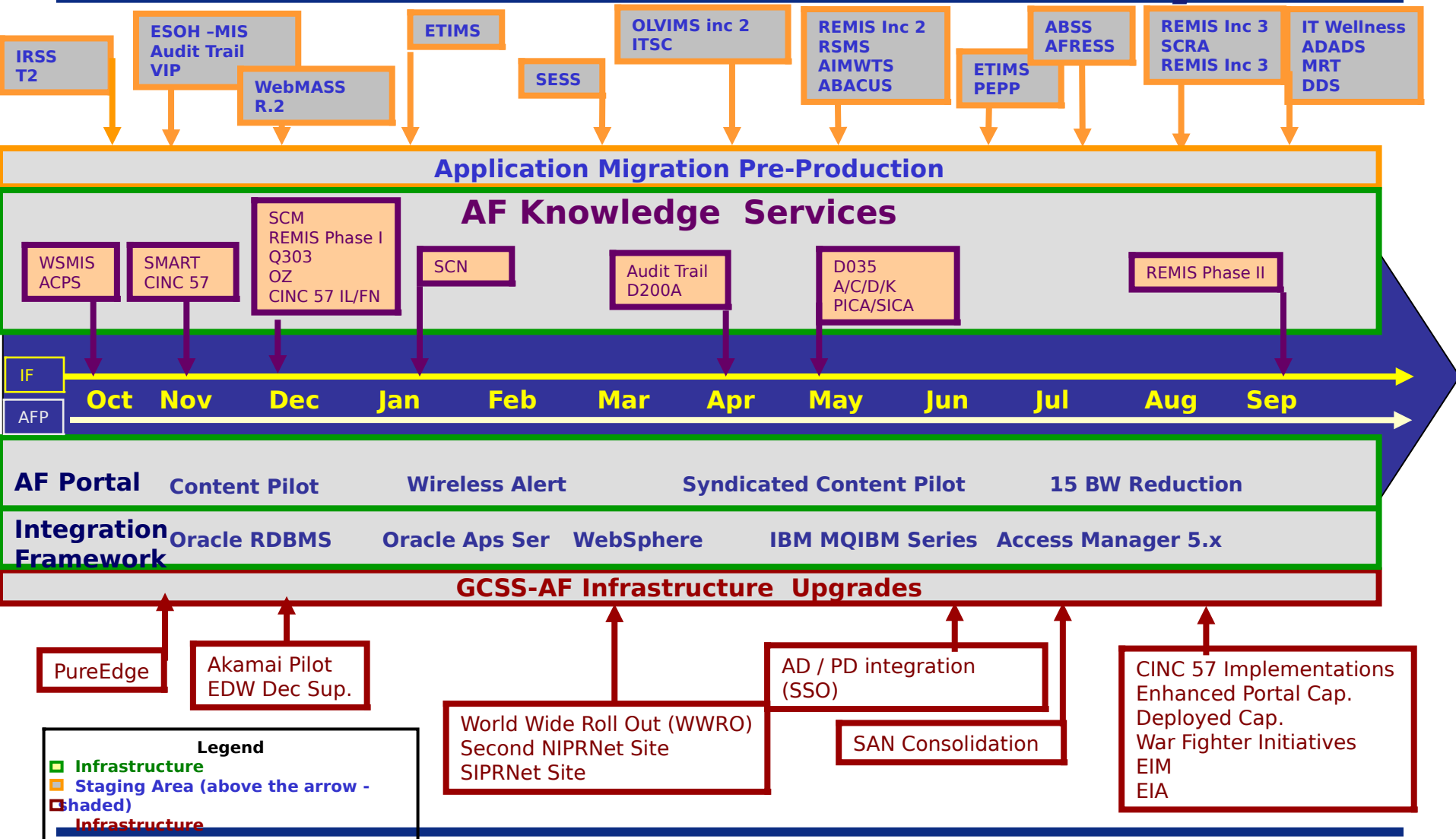
# ***Tivoli Access Manager (TAM) Upgrade Status***

- **Currently in-process of upgrading from TAM v3.8 to TAM v4.1**
- **Second site effort and IBM supportability required move to latest release**
- **Production Rollout in-process**
  - Pre-production Staging Completed
  - Upgrade on production started Nov 10, but not on-line
    - Production roll on 15-Nov identified problem bringing multiple webseals on-line
      - Caused approx. 2.5 hours of degraded service to users
      - O&S/Rollout team in process of working with IBM to troubleshoot/fix problem
      - Expected to turn on-line first week of Dec 03



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# FY04 GCSS-AF Roadmap







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# ***GCSS-AF Challenges***

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- **Response time of portal**
- **Second Site**
- **Scalability: Portal and Model**



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# ***Key Points of Contact***

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**Lt Col Joe Besselman**

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**Mr. Joe Farinello**

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**607-751-6096**

**Mr. Ted Haberlein**

**[Theodor.haberlein@hanscom.af.mil](mailto:Theodor.haberlein@hanscom.af.mil)**

**781-377-7094**

**Mr. Glen Townsend**

**[Glen.townsend@hanscom.af.mil](mailto:Glen.townsend@hanscom.af.mil)**

**781-377-7509**

**Lt Col Dan Hausauer**

**[Dan.hausauer@pentagon.af.mil](mailto:Dan.hausauer@pentagon.af.mil)**

**703-601-4970**

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***In 607-751-4648 Service - Excellence***



# ***Headquarters U.S. Air Force***

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***Integrity - Service - Excellence***

## **Current Technical Direction and Update**



**John S. Wunder**  
**GCSS-AF Architect (Lockheed)**  
**John.Wunder@lmco.com**  
**607-751-6096**

**21 Nov 2003**

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# ***Take Aways***

- **Hierarchical architectural guidance is being legislated. AF-BEA and GCSS-AF will assure the GCSS-AF Family of Systems (FoS) complies with the higher level architectures.**
- **GCSS-AF infrastructure is in production and the focus is now on delivering mission capability.**
- **With the maturation of the GCSS-AF infrastructure prime focus now is on open discovery, management, optimization, and evolution of existing services/capabilities.**



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# **SECAF's BMMP**

## ***Direction***

***24 Jul 03***



- **Charters Air Force Business Modernization & Systems Integration (AF BMSI) Office**
  - **Provide policy, direction, and integration for AF business enterprise solutions**
  - **Focal point for business management modernization to all external organizations**
- **Defines governance structure**



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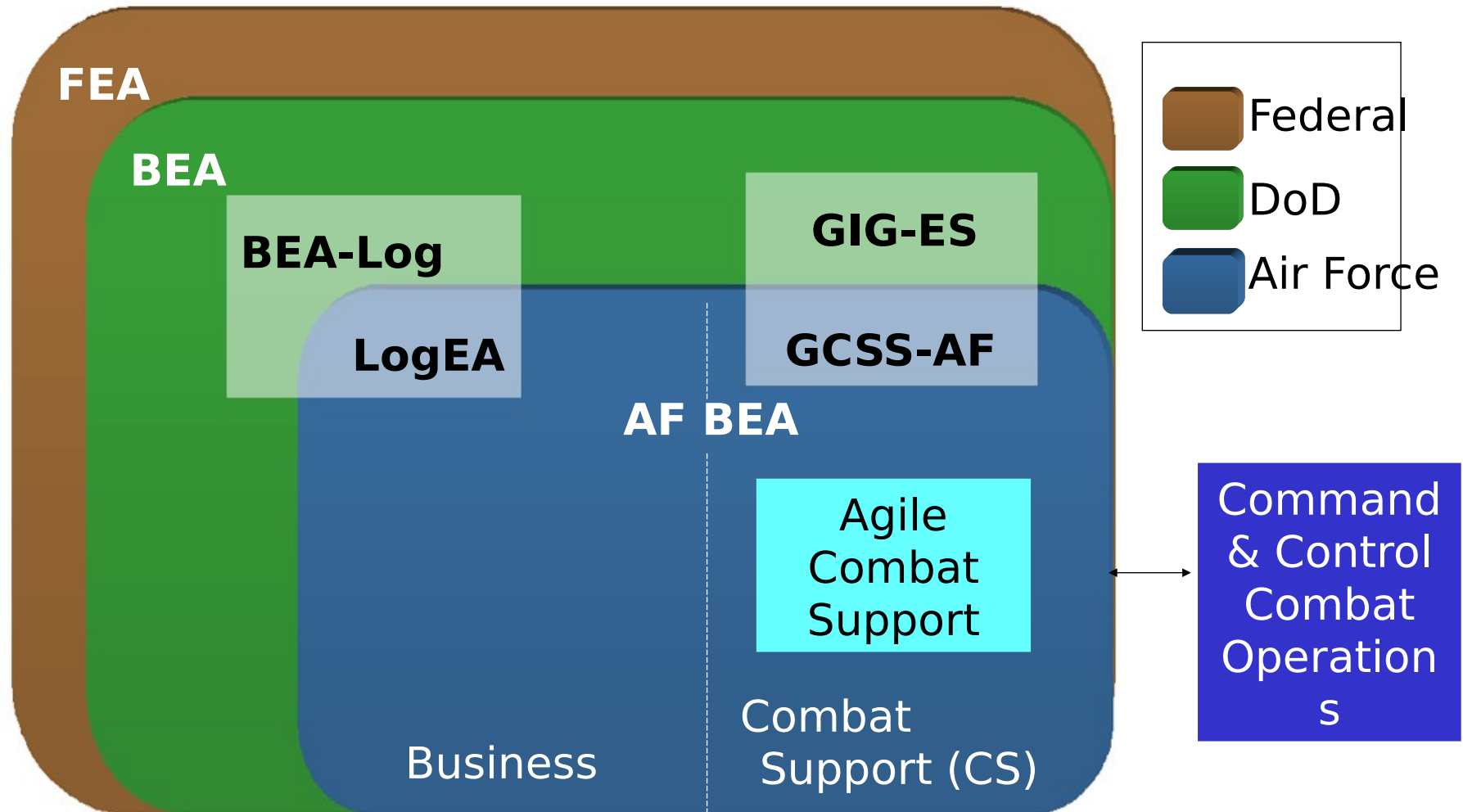
# *Architectural Initiatives*

- **Business Modernization Management Program (BMMP)** produced DoD **Business Enterprise Architecture (BEA)**
- **Business Enterprise Architecture - Logistics (BEA-Log)** is a parallel effort by OSD delivering Logistics portion of the DoD BEA
- **Air Force Operational Architectures**
  - Agile Combat Support CONOPs
  - Logistics -Enterprise Architecture (Log-EA **follow on to BEA-Log**)
- **Air Force - Business Enterprise Architecture AF-BEA** is an effort by **BMSI** to consolidate Business and Combat Support Operational Architecture on GCSS-AF



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# Architectural Hierarchy





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# AF-BEA Enterprise Process View

Environment  
Legislation, Political/Administration  
Direction, World Events

## Governing Processes

Conduct Enterprise Planning  
Allocate Resources  
Manage Performance

Determine  
Customer

Develop  
Capabilities

Source Capabilities

Operate  
Capabilities

Sustain  
Capabilities

## Enterprise (Core) Processes

## Enabling Processes

Provide HR Support Services  
Manage Communications  
Provide Safety and Force Protection  
Manage Information and Technology  
Manage Finance  
Manage Infrastructure  
Provide Other Services

## Warfighting Capabilities

Global Strike

Global  
Mobility

Global  
Response

Space &  
C4ISR

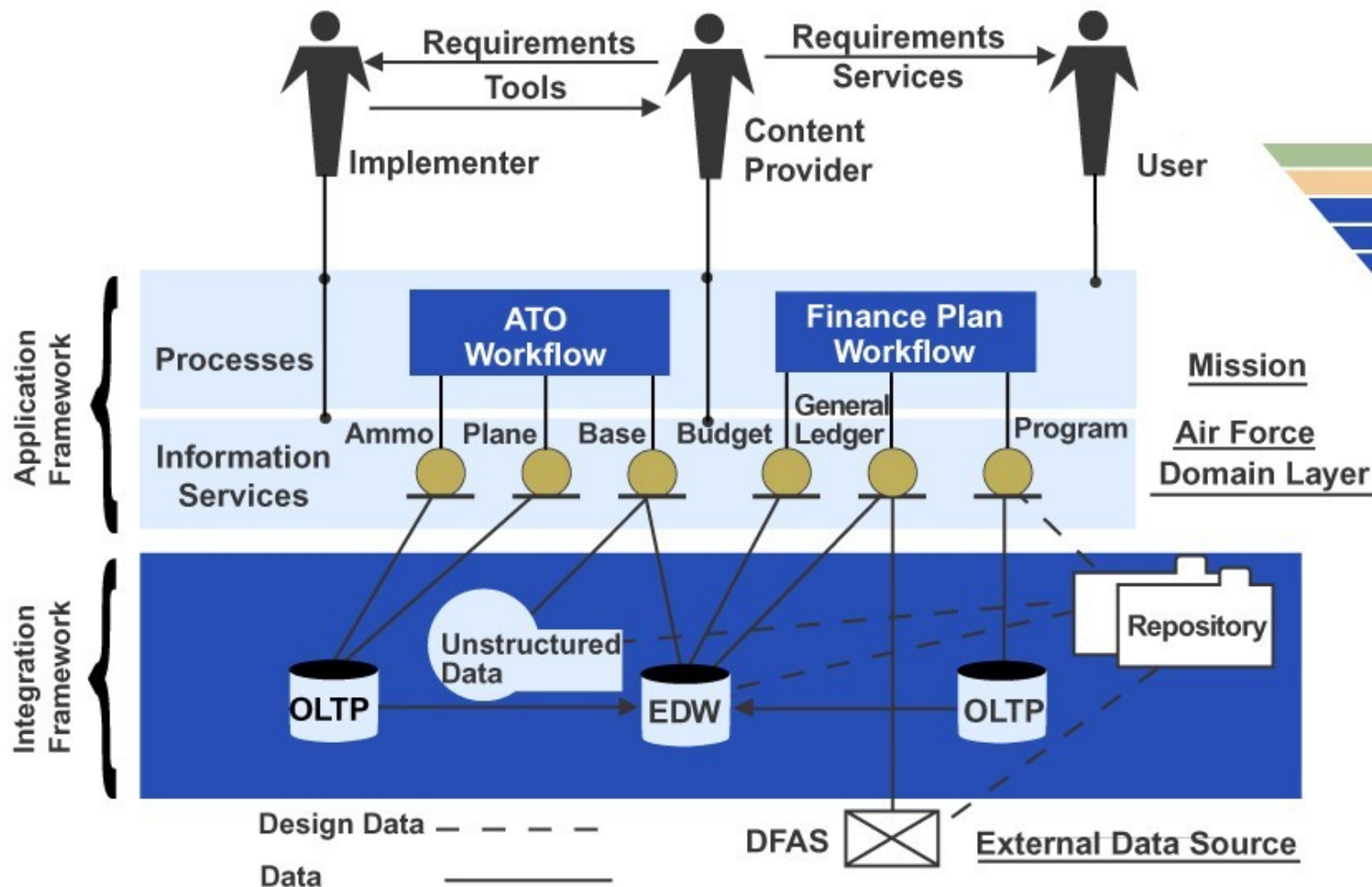
Nuclear





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# Mission Capability Delivery

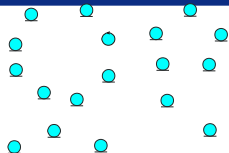




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# ***USAF Business and Combat Support***

**Air Force Combat Support System Components**



**AF Inventory**

**AF Demand Planning**

**AF Travel and Expense**

**Finance**

**AF Assets**

**AF General Ledger**

**AF Shipping**

**Logistics**

**AF Matching**

**AF Order Management**

**AF Budget AF Time and Labor**

**AF Requisitions**

**CMMS**

**AF Catalog Management System**

**Acquisition**

**AF Program**

**AF Payroll**

**AF Medical**

**Personnel**

**Medical**

**AF Training**

**AF Human Resources**



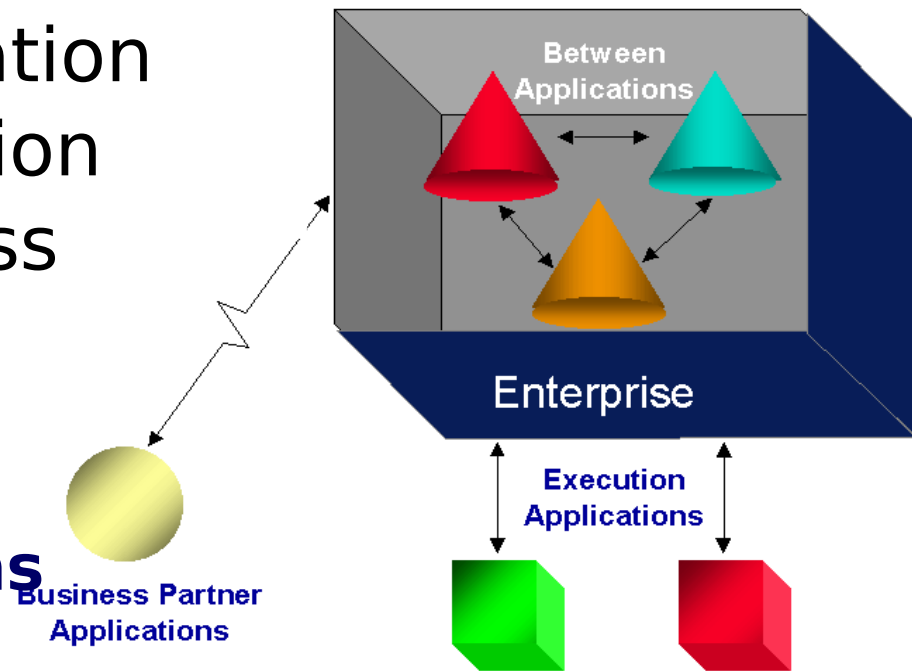
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# Open Applications Group

**Not-For-Profit Industry Consortium  
building standards for Global Business  
Integration**

- Business to Business
- Application to Application
- Application to Execution
- For horizontal business

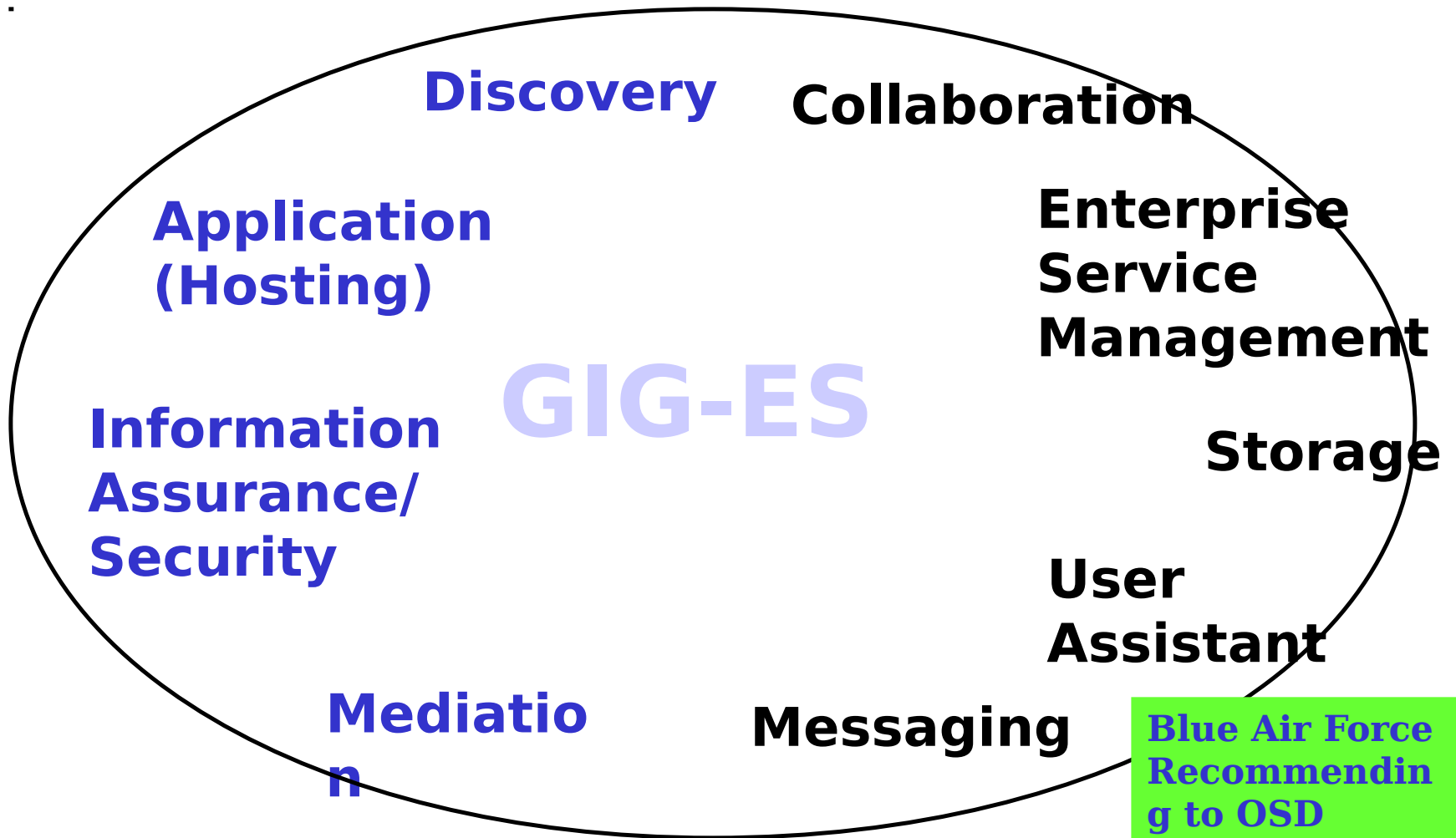
**“We build the language  
that business applications  
speak”<sup>TM</sup>**





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# ***GCSS-AF Enterprise Services Architecture***





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# ***Application Services***

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Services that **host, acquire, and maintain infrastructure and mission functions**. Services enable tailoring of functions and interfaces to adjust to User needs. The system functions associated with this service support shared applications and distributed applications.



# ***Application Status***

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## ■ **Components**

- **Application Server (WebSphere, Oracle AS, IIS/ASP)**
- **Operating System (Solaris, Windows, HP UX)**
- **WebServer (Apache IIS)**
- **RAD Framework (Cold Fusion)**
- **Disaster Recovery**
- **Failover (Cross Site)**

## ■ **Benefits GCSS-AF Application**

- Availability
- Reliability
- Reduced Lifecycle Cost
- Transactional Integrity

## ■ **Standards**

- J2EE
- Microsoft Framework
- POSIX
- HTTP
- HTML
- XA/Open

**Blue Products Selected**

**Black products current or future focus**



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# Collaboration Services

Services that enable the interaction of two or more people, organizations, agencies, or assets to share multimedia data, information, applications, and common situational perspectives. Consists of conducting asynchronous and session-based dialogues and meetings. The system functions associated with this service support management of collaborative groups, virtual workspaces, and collaborative services.



# ***Collaboration Status***

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## ■ **Components**

- **Instant Messaging (Bantu)**
- **Business Process Scripting and Execution**

## ■ **Benefits GCSS-AF Collaboration**

- Force multiplier
- Virtual teaming
- Operational Architecture Implementation

## ■ **Standards**

- WorkFlow Management Coalition (WFMC)
- Web Services - Business Process Execution Language (WS-BPEL)
- Business Process Modeling Language (BPML)
- OAGIS
- DoD Discovery Metadata Standard (DDMS)

**Blue Products Selected**

**Black products current or future focus**





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# ***Discovery Services***

Services that facilitate the **search and retrieval of information content stored in Catalogs, Directories, and Registries.** Also consists of information that will be acquired in the future in response to a Request For Information (RFI).



# Discovery Status

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## ■ Components

- **Catalog, Registry, Repository (GoXML)**
- **Content Management System**
- **Directory (Active Directory)**
- **Data Management Model**
- **Search (Autonomy)**

## ■ Benefits GCSS-AF Discovery

- Portfolio Management
- Discovery of Information and Processes
- Operational Architecture Implementation

## ■ Standards

- Open Applications Group Interface Specification (OAGIS)
- DoD Discovery Metadata Standard (DDMS)
- ebXML Registry Standard
- Universal Description, Discovery, and Integration (UDDI)
- Web Service - Business Process Execution Language (WS-BPEL)
- Structured Query Language (SQL)
- Lightweight Directory Access Protocol (LDAP)

**Blue Products Selected**

**Black products current or future focus**



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# ***Enterprise Service Management***

Services that provide **all aspects of systems and network management.**

This also consists of management of Net-Centric Enterprise Services (NCES) specific resources. The system functions associated with this service **support management of User Profiles, Communities of Interest (COI), Catalogs and Directories, Publish and Subscribe Lists, Messaging Boards, and Information Restoration.**



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# ***ESM Status***

## ■ **Components**

- End to End Performance (AppScope)
- Data Center Performance (TeamQuest)
- Logging (Log4J)
- Storage Management (Oracle, Teradata, EMC)
- Network Management (Tivoli)
- User Management (Tivoli Web Portal Manager)
- WS-Management
- Messaging Management
- Provisioning

## ■ **Benefits GCSS-AF ESM**

- Proactive Operations and Support
- Statistical Process Control
- Reduced lifecycle cost

## ■ **Standards**

- Simple Network management Protocol (SNMP)
- WS-Management
- Services Provisioning Markup Language (SPML)

**Blue Products Selected**

**Black products current or future focus**



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# *Information Assurance and Security Services*

Services that provide for the **protection and assurance of information** and data that traverse the network-centric environment. Incorporated are measurement services that provide **security controls, policies and procedures, and protective measures** to effectively address system risks (potential for exploit), threats (attacker), and vulnerabilities



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# ***Information Assurance and Security Status***

## ■ **Components**

- Authentication and Authorization (Access Manager)
- User and Resource Directories (Active Directory)
- Public Key Infrastructure (DoD, Access Manager)
- Identity Management
- Network Access Points (Cisco Content Services Switch, Bluecoat, Akamai, AppCelera)
- Multi Level Security Guards

## **Benefits GCSS-AF Security**

- Secure Access
- Distributed Administration
- Centralized Control
- Consolidation efficiencies

## ■ **Standards**

- Java Authorization and Authentication Standard (JAAS)
- Kerberos
- Web Services - Security
- DoD Public Key Infrastructure (PKI)
- Security Access Mark-up Language
- Lightweight Directory Access

**Blue Products Selected**

**Black products current or future focus**



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# ***Mediation Services***

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Services that **translate, aggregate, fuse, and integrate data/information.** This addresses **Situational Awareness and Alert Activation.**



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# ***Mediation Status***

## ■ **Components**

- **Extract, Transform, Load (Informatica)**
- **Enterprise Application Integration (BizTalk)**
- **Business Intelligence (Business Objects, COGNOS, Oracle Discoverer, Oracle Reports, Brio)**
- **Alerts (BroadVision,**

**Blue Products Selected**

**Black products current or future focus**

## ■ **Benefits GCSS-AF Mediation**

- Common Information Model
- Exposure of Enterprise Information
- Reuse of Enterprise Business Logic

## ■ **Standards**

- Open Applications Group Interface Specification (OAGIS)
- United States Message Text Format (USMTF)
- ebXML Core Components
- DoD Discovery Metadata Standard (DDMS)
- ebXML Registry Standard
- Universal Description Discovery and Integration (UDDI)
- Web Service - Business Process Execution Language





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# ***Messaging Services***

Services that provide the ability to **exchange information among Users and applications** via formal (organizational) and informal (email and message boards) messaging services, including structured and free form messages.



# Messaging Status

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## ■ Components

- **Application centric messaging (WebSphere MQ)**
- **E-Mail**

## ■ Benefits GCSS-AF Messaging

- Structured Information Flow across the Enterprise
- Flexible user information exchange
- Guaranteed Delivery
- Publish and Subscribe

## ■ Standards

- Open Applications Group Interface Specification (OAGIS)
- Java Messaging Service (JMS)

Web Service - Transport

**Blue Products Selected**

**Black products current or future focus**



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# ***Storage Services***

Services that manage the **storage of data** in a data warehouse and associated data marts, and satisfy GIG information assurance requirements. The system functions associated with this service support **Information Storage, Retrieval, Deletion, and Archiving.**



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# ***Storage Status***

## ■ **Components**

- **Online Transaction Processing Database (Oracle, SQLServer)**
- **Data Warehouse (Teradata)**
- **Storage Area Network (EMC)**
- **Data replication, caching, and**

**Blue Products Selected**

**Black products current or future focus**

## ■ **Benefits GCSS-AF Storage**

- Structured and Unstructured Information Persistence within the Enterprise
- Optimized performance of data stores

## ■ **Standards**

- SQL
- POSIX
- ODBC
- JDBC
- URI/URL



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# ***User Assistant Services***

Services that provide assistance to any User (individuals, organizations, and physical assets) that interfaces with the NCES. The User Assistant supports the User anytime he connects to the Grid regardless of where he is located. This assistance consists of **managing information exchanges between the User and the NCES**; evaluating changing User requirements and interactions, dynamically updating the User profile; **adjusting NCES interactions with the User based on User event history**; and managing **User Quality Of Service (QOS)** needs. When the User is disconnected from the Grid, the User Assistant **maintains a presence with the User**. A User Surrogate maintains a presence in the Grid representing the User. The User Surrogate is capable of processing certain transactions for the user. Other transactions are queued for the User until the User is re-connected to the Grid and can then receive the transactions.



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# ***User Assistant Status***

## ■ **Components**

- **Portal  
(BroadVision)**
- **Knowledge  
Discovery  
(Autonomy)**
- **Browser  
(Internet  
Explorer,  
Netscape)**

## ■ **Benefits GCSS-AF User Assistant**

- Common User Interface
- User customization and personalization

## ■ **Standards**

- XML
- HTML
- HTTP
- DOM
- URI/URL

**Blue Products Selected**

**Black products current or future**



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# ***Leadership Mandate***

- **We must focus on the information and automate the processing, so information is displayed intuitively**
- **Let's leverage technology to improve quality of life for our airmen and streamline our business support functions**



***“The Air Force needs to think differently if it is to eliminate the things, such as “stovepiped” systems, that inhibit integration and keep the service from focusing on achieving results.”***

***-- General John***

***Jumper***



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# ***Headquarters U.S. Air Force***

***Integrity - Service - Excellence***

## **Vendor Relations & Product Interest for GCSS-AF Industry Day**



**Dr. Will Tracz**

**Will.Tracz@lmco.com**

**Lockheed Martin Mission Systems**

**21 Nov 2003**

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## ■ Background/Philosophy

- Context: Enterprise Services on **GCSS-AF IF**

## ■ Multiphase Strategy Inputs/Outputs

- Content Management System (CMS) Example

## ■ Status

- GCSS-AF IF Technology Roadmap
- Vendor Product Registration Status

## ■ Discussion

- Getting on the GCSS IF Technology Roadmap



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# ***Take Aways***

## **GCSS-AF IF Technology Roadmap is:**

- **Driven “*top-down*” by:**
  - **Planned** technology evaluations
  - Vendor Product Registration **Business Case** Propositions
- **Driven “*bottom-up*” by:**
  - Application **Change Request** (CR)  
“capabilities”



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# ***GCSS-AF Philosophy: Enterprise Services***

***To have:***

- 1. “Preferred” products for certain enterprise services, and***
- 2. Alternative products for the same enterprise service, if a business case exists for it.***



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# ***GCSS-AF Philosophy: Product Assessment***

***The GCSS-AF vendor product assessment process is:***

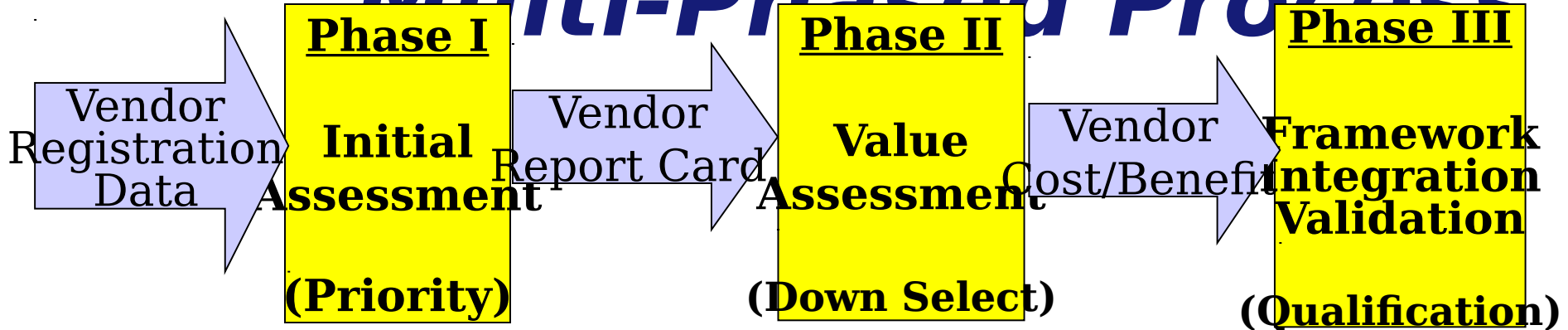
- *open to industry,*
- *but vendors should be willing to demonstrate/document, at their cost, the value of their product.*



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# Product Evaluation:

## ~~Multi-Phased Process~~



- **Products** are evaluated by **Enterprise Service**.
- Each phase results in a **down select** of eligible products.
- **Enterprise Services** are scheduled on a **roadmap**.
- The assessment schedule can be preempted by a strong "**Business Case**."
- The **Vendors must provide** specific data.

■ The **format** of the Vendor Registration Data -  
Version: Integrity Service Excellence

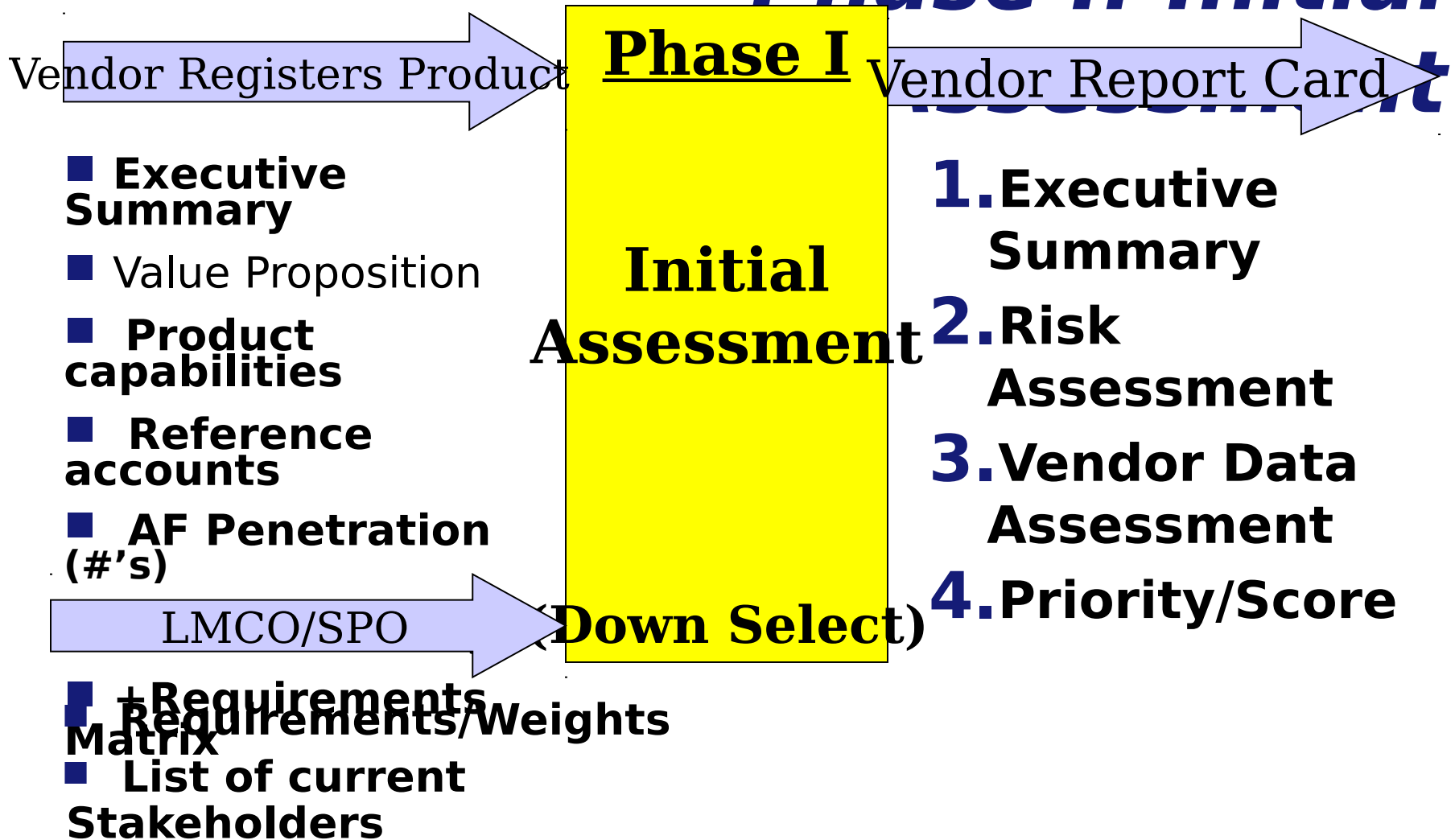
[www.assess.com](http://www.assess.com)



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# CMS Example

## ~~Phase I: Initial~~





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# CMS Example

## Phase II: Value Assessment

### Vendor Data

- Additional data
- Demonstration

### LMCO/SPO

- Additional Requirements
- Demonstration Script
- Demonstration Schedule
- Demonstration Evaluation

## Phase II

## Value Assessment

(Down Select)

### Cost/Benefit Report

1. Executive Summary
2. Capability Matrix
3. Cost Matrix
  - Initial (e.g., acquisition, integration, test, training)
  - Annual (e.g., life cycle)
4. Benefit Matrix
5. Risk Matrix
6. Evaluation Scores

Guidelines

Version

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# CMS Example

## ~~Phase III: Integration~~

**Vendor**

**Phase III**

**IF**

- Product (s)
- Services
- Additional Data (as required)

**LMCO/SPO**

**Framework  
Integration  
Validation**

- **Prototype**

**(Qualification/  
Selection)**

- **Capabilities** Validation Plan
- **Performance** Validation Plan
- **Scalability** Validation Plan
- Integration Plan
- Sample Test Data





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# ***CMS Evaluation***

## ***~~"Tentative" Schedule~~***

12 Dec 03	Post Requirements to HERBB
<b>12 Jan 04</b>	<b>Vendor Responses</b> due
	Demonstration Scenarios pos
19 Jan 04	Down Select Announced
<b>26 Jan 04</b>	<b>Demonstrations</b> begin
06 Feb 04	Demonstrations end
11 Feb 04	Down Select Announced
<b>16 Feb 04</b>	<b>Prototype</b> Phase Begins
20 Mar 04	Prototype Phase Ends
27 Mar 04	Results Provided to Air Fo

# ***GCSS-IF Technology Roadmap***

## **Toda**

y  
J2EE  
JMS  
JAAS  
XML  
ebXML

**This  
Year**  
OAGI  
WS-I  
XML-  
Schema  
USMTF -  
XML  
Wireless  
AIT

**Future**  
Business  
Process  
Grid Standards

**Execution Year**

**FY05**

**FY06**

## **FY04**

### **SIPRNET Content Management**

Data Management  
WS-Management  
Messaging  
Management  
Multi Level Security  
Business Process  
Execution  
Replication/Caching  
Mobile/Wireless  
E-Mail

## **FY05**

Email  
Provisioning  
Content  
Routing  
CS to  
Operations  
Computing  
GRID

## **FY06+**

Immobots  
Agents  
....

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# ***Vendor Product Registration Summary***

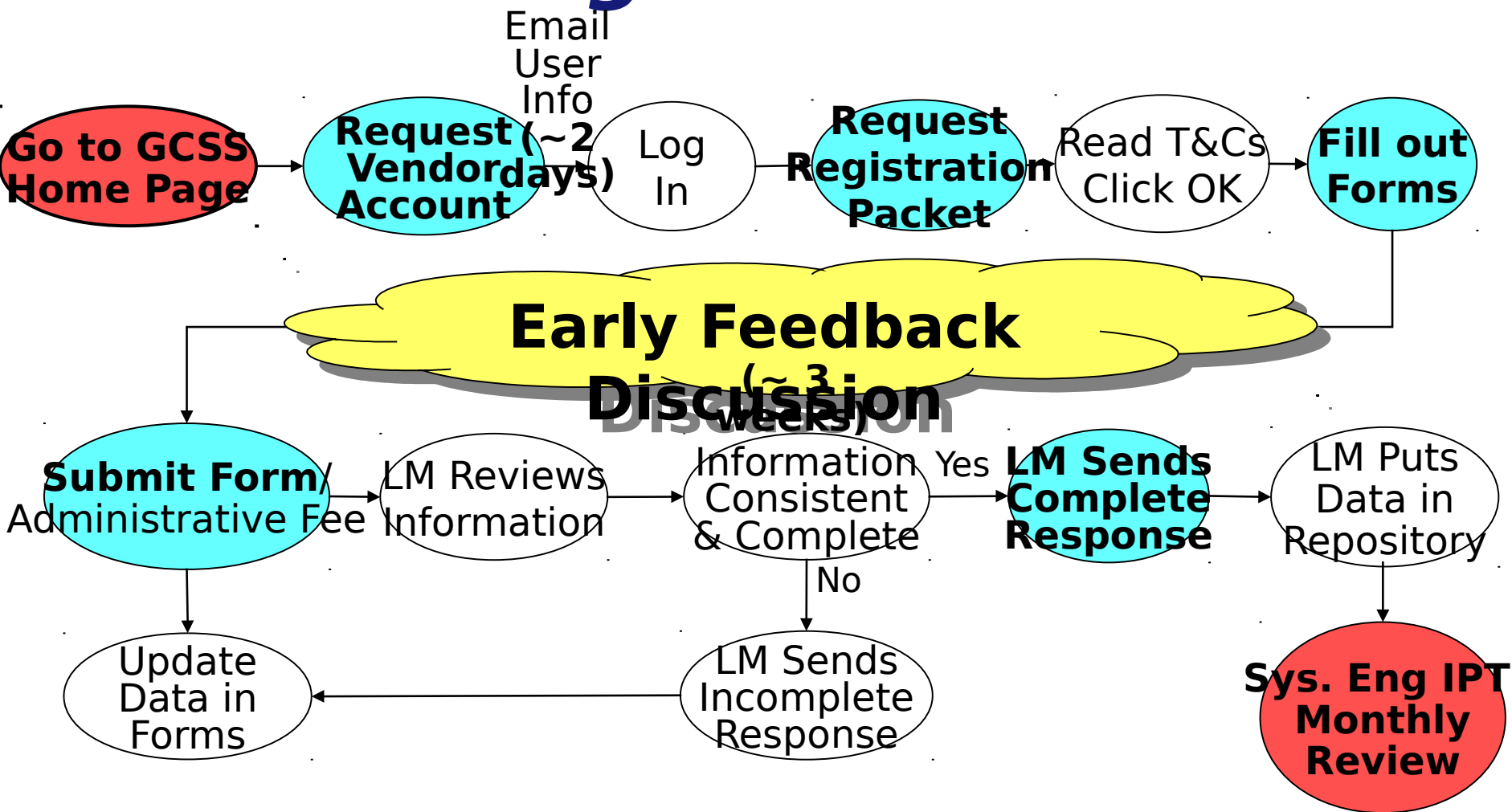
- **115\*** vendors registered for vendor accounts/access to vendor web page
- **21** requested registration information
- **5** registration packets in progress
- **6** draft registration packets submitted
- **4** registration packet submitted

**\* ~ 60 different companies**



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# Vendor Product Registration Process





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# ***Vendor Product Registration Getting Started***

## ■ **Vendor Accounts on [www.GCSS-AF.com](http://www.GCSS-AF.com)**

- Support Tab - Member Sign Up /Text Box

## ■ **Vendor Information Page**

- Vendor Product Registration Packet/Form
  - ***Executive Briefing Template***
  - Terms and Conditions
  - Business Case Guidelines
- FAQ
- IF Documentation
- Roadmap
- Plus more useful information



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GCSS-  
AF.com

Version

GCSS-AF e-Support Home Page - Microsoft Internet Explorer provided by Lockheed Martin-Owego

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Mail News RSS

Address <http://www.gcss-af.com/cfs/outreach/index.cfm> Go

Home Support Login

 GCSS-AF

Tuesday, November 18, 2003 Home Page

### GCSS-AF.COM

#### New Member Signup

If you are not yet a member of gcss-af.com. Sign up now! Benefits include information access, discussion forums, and much more.

#### Login Help

Forget your password or username? Fill out this form and send it to the web administrator.

#### Ask A Question

Ask questions about the GCSS-AF Program or this website and receive an answer in an email.

#### Related Links

A list of other GCSS-AF related websites.

### Welcome Message

**Welcome to GCSS-AF.com. The information and community center for the Global Combat Support System.**

This website exists to facilitate communications, process execution, problem resolution, education, and information availability for the many geographically dispersed Global Combat Support System-Air Force participants.

The GCSS-AF performance teams are encouraged to join this information-based community. [Converse with technical and business staffs around the world. Share your experiences and benefit from the experience of others.](#)

This website is best viewed with Internet Explorer 5.0 and above.

### Announcements

Search Function accessible from the site home page!

GCSS-AF Acronyms Listing Available!

### Upcoming Events

**GCSS-AF Customer & Vendor Conference**

Software Technology Conference

### Change Request System

#### Launch Change Requests

A Web-Based tool that facilitates the collection and initial evaluation of any GCSS-AF related change request.

### Discussion Forums

#### Launch Forums

A topically organized center for GCSS-AF discussion. All members may post messages, reply, search the forums and more.

### Info Sharing System

#### Launch Info Share

A web based interface for sharing GCSS-AF related files within GCSS-AF.COM membership groups.

Done Local intranet



# GCSS-AF.com Registration

GCSS-AF e-Support Home Page - Microsoft Internet Explorer provided by Lockheed Martin-Owego

File Edit View Favorites Tools Help

Address http://www.gcss-af.com/cfs/outreach/tools/signup/index.cfm

Home Program Center ▼ Info Center ▼ Support ▼ Education ▼ Login

GCSS-AF

Wednesday, November 12, 2003 Member Sign Up

GCSS-AF.com - New Member Registration Form

Are you a:

- ☐ **GCSS-AF Employee**  
Select this option if you are a GCSS-AF employee with a .mil email address
- ☐ **Lockheed Martin Employee**
- ☐ **Vendor/Supplier**  
Select this option if your company is currently **not under contract** with GCSS-AF and would like to participate in the GCSS-AF program, supplying either Hardware, Software or Network services.
- ☐ **Application Developer, Partner or Supplier**  
Select this option if your company is **under contract** developing applications for the GCSS-AF program, or if your company is a partner/subcontractor with Lockheed Martin in the GCSS-AF program.



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# GCSS-AF.com Vendor Home Page

Version

GCSS-AF e-Support Home Page - Microsoft Internet Explorer provided by Lockheed Martin-Owego

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Mail New Tab

Address <https://www.gcss-af.com/cfs/outreach/tools/vendor/index.cfm>

Home Program Center Info Center Support Education Logoff

**GCSS-AF**

Tuesday, November 18, 2003 Vendor Homepage

## GCSS-AF Vendor Information Home Page

### Request Product Registration Packet

This packet (updated 9/29/03) includes:

- Terms and Conditions
- Product Registration Questionnaire with Business Case Analysis Template

### Submit Product Registration Questionnaire

- Submit zip file containing the completed Product Registration Questionnaire, Executive Summary Presentation and supplemental information
- Registration Fee process

### Download Executive Summary Presentation Template

Use this powerpoint file to create the Executive Summary Presentation for Vendor Product Registration

### Request GCSS-AF Contract Information

The Air Force and other DoD organizations can buy products and services off the GCSS-AF IDIQ (Indefinite Delivery/Indefinite Quantity) Contract without requesting multiple bids or lengthy procurement processes. The GCSS-AF IDIQ Contract makes the acquisition process more timely and efficient by pre-negotiating terms, conditions and pricing with the Air Force for commercially available products and services.

### Presentation Material from 12 May 03 Industry Day

- Ground Rules & Agenda
- Technology & Operations Status  
(It will take about 55 seconds to download this file.)
- Technology Roadmap Forecast
- Technology Selection/Evaluation Process
- Questions/Answers (unavailable, under review)

### Reference Material:

- Architecture Overview and Description
- Current Integration Framework Product List
- Current Roadmap
- GCSS-AF Integration Framework Developer's Guide

Local intranet





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# Summary

- **The GCSS-AF IF Technology Roadmap defines when and what technologies will be evaluated.**
- **The Technology Roadmap is driven by**
  - **Planned** technology evaluations
  - Vendor Product Registration **Business Case Propositions**
  - Application **Change Request** (CR) “capabilities”
- **The Vendor Product Registration Process is an “Open RFI” available on [www.gcss-af.com](http://www.gcss-af.com)**



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# ***Discussion***

# **Questions?**



# ***Headquarters U.S. Air Force***

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***Integrity - Service - Excellence***

## **Global Combat Support System-Air Force (GCSS-AF) Outreach Update**



**U.S. AIR FORCE**

**November 2003  
Paul Montague  
Lockheed Martin Mission Systems  
GCSS-AF Outreach Team**



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# ***Agenda***

- **Introduction to Outreach**
  - What Is Outreach?
  - What's Going On In FY04
  
- **Levels of Integration**
  
- **Questions and Discussion**



# ***Headquarters U.S. Air Force***

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***Integrity - Service - Excellence***

## ***What Is Outreach?***



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# ***What Is “Outreach”?***

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- **Goal = Provide high-level technical assistance in bringing AF business capabilities to GCSS-AF**
- **Team = Glen Townsend, lead @ GCSS-AF SPO**
  - 2 AF @ GCSS-AF SPO
  - 2 LMMS @ Owego
  - 1 AT&T @ Gunter
- **Current Outreach Activities**
  - Maintain GCSS-AF Roadmap
  - Collect initial application questionnaires
  - Conduct initial TIM's
  - Conduct regular (weekly) telecons
  - Email
  - Answer questions
  - Coordinate contacts with Ops and Support, etc. (including “90-day out” meeting)
  - Gcss-af.com



# ***What Outreach IS***

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- Outreach is a ***liaison*** between your program and the AF Enterprise
- Provides assistance in understanding and integrating with GCSS-AF
  - Understand application needs at high level
  - Inform app team about GCSS-AF, services, processes
  - Help resolve deltas – 2-way process!
- Can help coordinate new requirements (CR's)
- Emphasis on AF Enterprise interfaces and operations

**We are your communication channel to/from  
GCSS-AF**

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# ***What Outreach Is NOT***

- **...Dedicated and/or in-house**
- **...Detailed (code-level) technical help**
- **...Application “Advocate”**
- **...Training for developers**
- **...Trying to dictate application’s business logic, internal data use, etc.**

**Acquire qualified resources  
(integrator, education, etc.) to  
address these**





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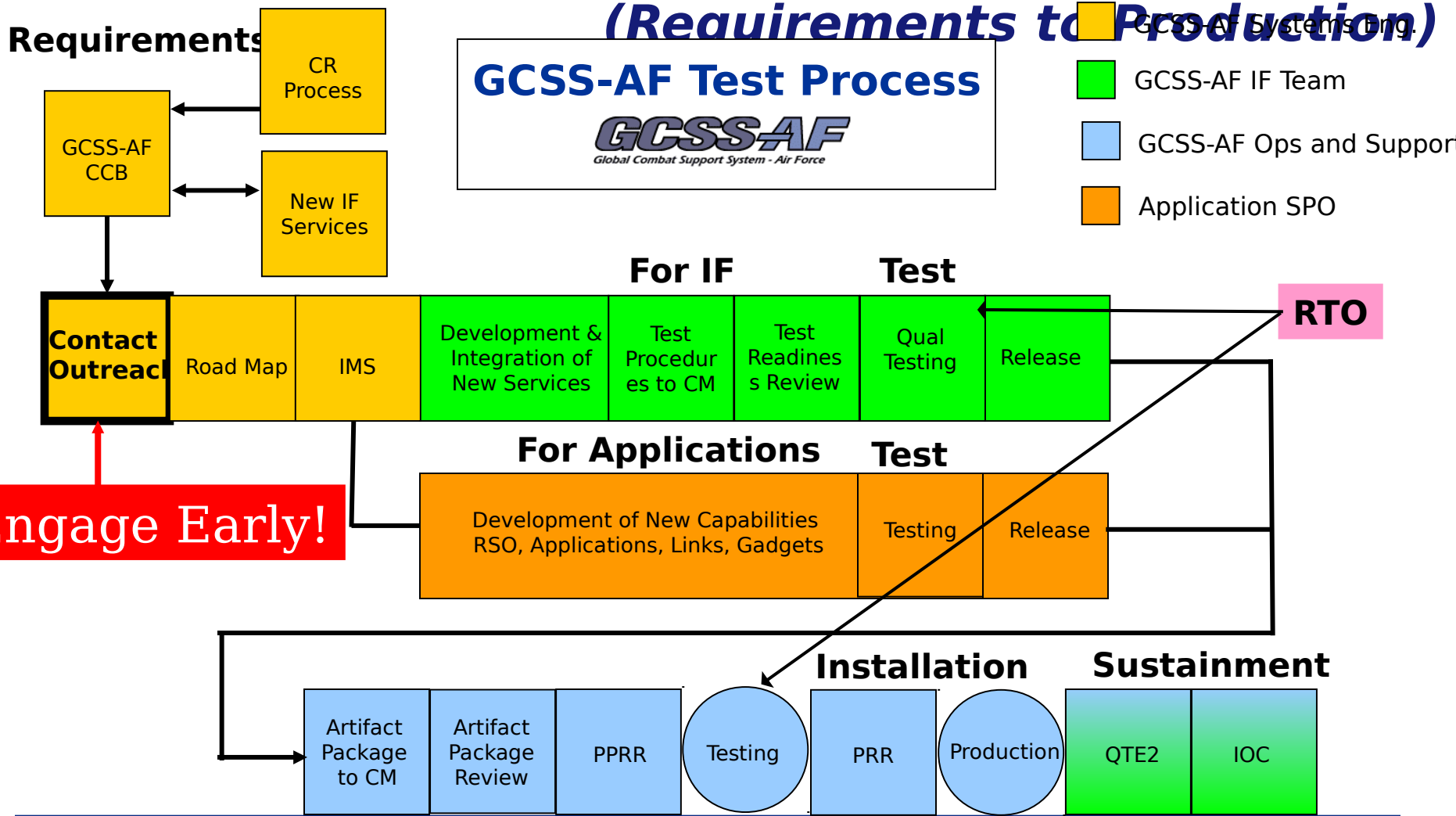
# GCSS-AF Lifecycle and Testing

(Requirements to Production)

## GCSS-AF Test Process

**GCSS-AF**  
Global Combat Support System - Air Force

- GCSS-AF Systems Engineering
- GCSS-AF IF Team
- GCSS-AF Ops and Support
- Application SPO





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# ***What is the “Roadmap”?***

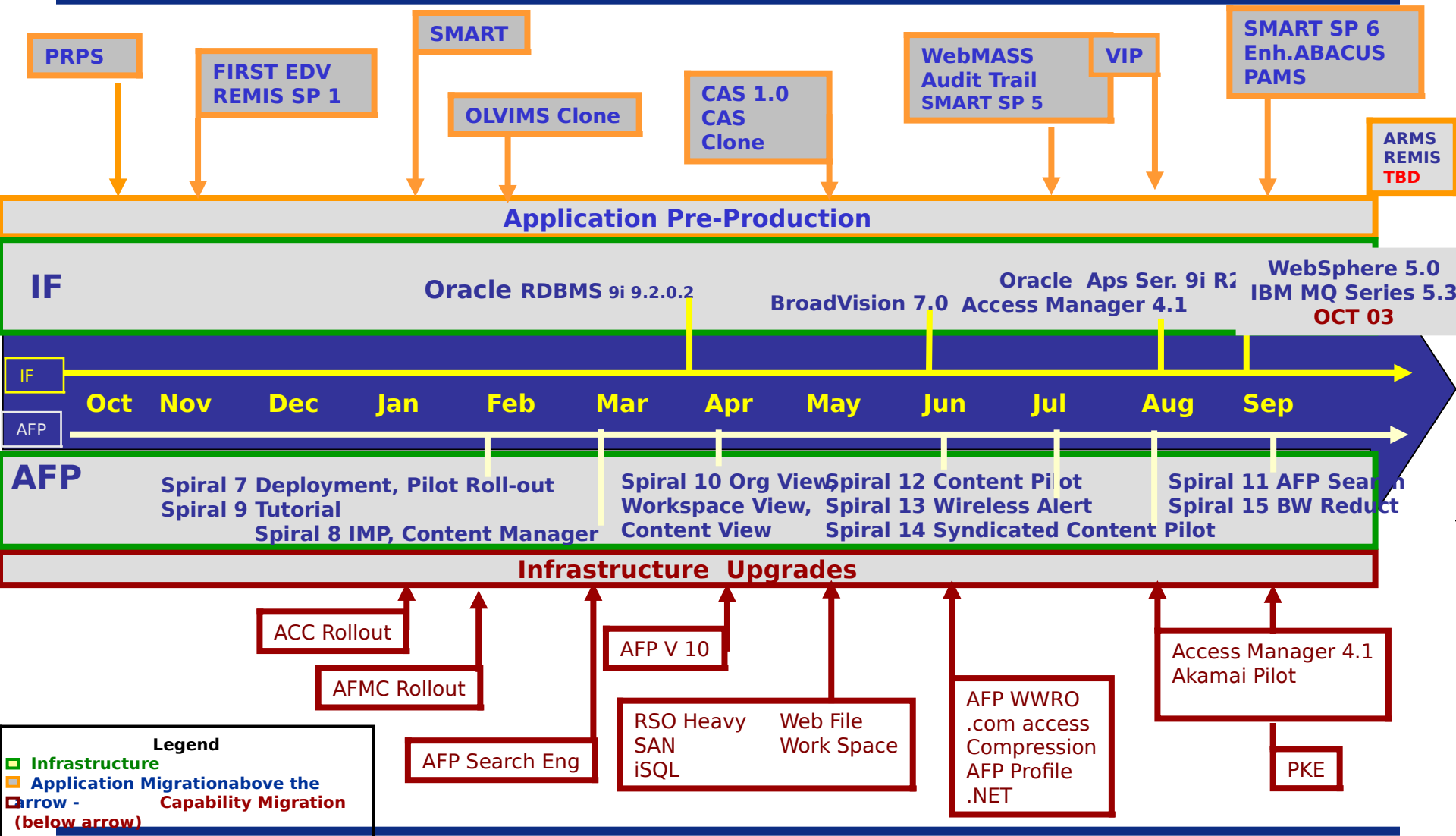
- **Overall planning mechanism**
- **Graphical representation of IMS (which is management tool)**
- **Tracks:**
  - **Applications**
  - IF Upgrades
  - AF Portal Spirals

**Communicate and Coordinate!**  
**The Pipeline is Full!**



# FY03 GCSS-AF Roadmap

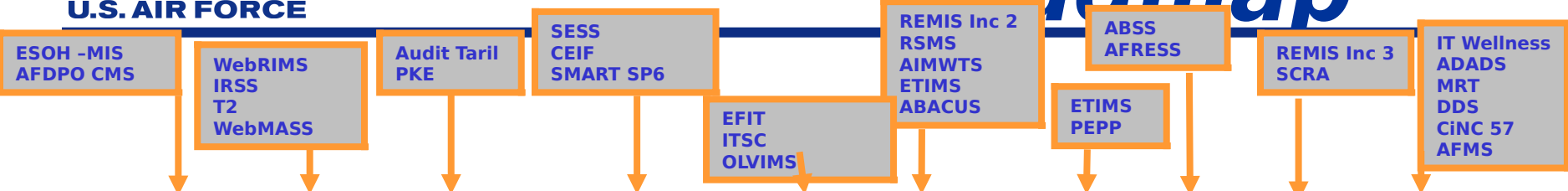
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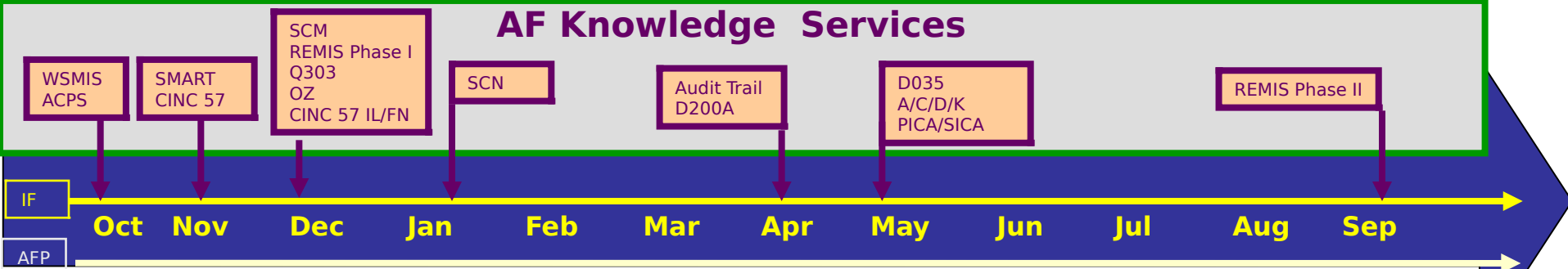
# FY04 GCSS-AF Roadmap

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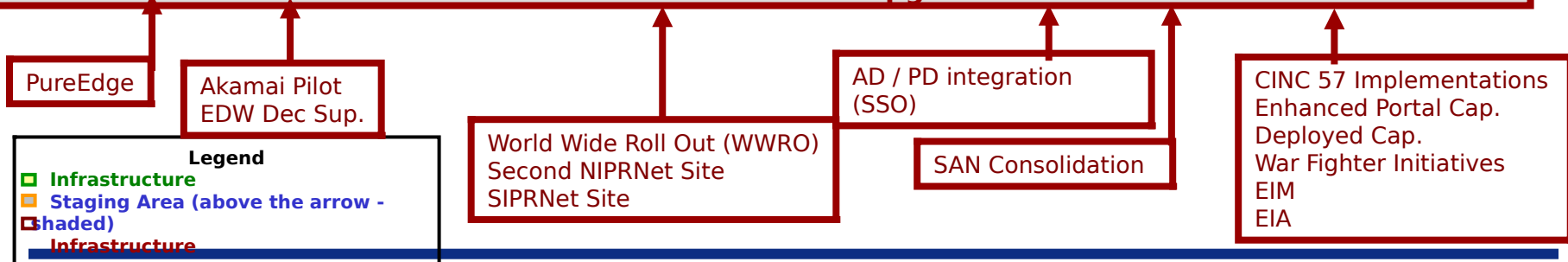


## Application Migration Pre-Production

## AF Knowledge Services



## GCSS-AF Infrastructure Upgrades



### Legend

- Infrastructure
- Staging Area (above the arrow - shaded)
- Infrastructure



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# Roadmap Summary

## GCSS-AF FY 04

PLAN as of start of FY

FY 04 Summary		
Category	Accomplished to Date	Planned/ On-Going
Application Migration Effort	1	40
Reduced Sign-On Activities (Heavy)	17	62
Enterprise Capability Enhancements	0	23
GCSS-AF Infrastructure Upgrades	2	11
Total	20	136



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# Roadmap -- *Infrastructure*

**FY 04**

PLAN as of start of FY

FY 04 Planned Infrastructure Upgrades		
	Integration Framework (IF) FY 04 Upgrades	Scheduled Date
1	Access Manager	14-Nov-03
2	Self Restrigration	14-Nov-03
3	IBM WebSphere 5.0 - Solaris	26-Nov-03
4	IBM MQ Series 5.3	26-Nov-03
5	Cognos Proove of Concept	15-Dec-03
6	Oracle Application Server - Discoverer SSO Integration	19-Dec-03
7	Enterprise Application Interation (EAI) - BizTalk	31-J an-04
8	MicroSoft .NET - Enterprise Solution	31-J an-04
9	IBM WebSphere 4.0.5 - Windows	13-Feb-04
10	Oracle RDBMS	None planned
11	BroadVision	TBD



# GCSS-AF Application Migration FY 04

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*Sorted by Staging Area Start Date*

FY 04 Planned Application Migration			
	System	Acronym	Staging Start
1	Environmental Safety and Occupational Health Management Information System	ESOH-MIS	3-Nov-03
2	AFDPO CMS (PureEdge)	CMS	24-Nov-03
3	WebRIMS	WebRIMS	3-Dec-03
4	Information & Resource Support System	IRSS	10-Dec-03
5	SAF/FMBIS Tuition Rates Submission Tool	T2	15-Dec-03
6	WebMASS Release 2.x	WebMASS	16-Dec-03
7	Audit Trail	AT	21-Jan-04
8	PKE enabled	PKE	15-Jan-04
9	CEIF at Hanscom Fielding		1-Mar-04
10	SMART Spiral 6	SMART sp 7	15-Mar-04
11	Suicide Event Surveillance System	SESS	19-Mar-04
12	Executive Facilities Information Tool	EFIT	9-Apr-04
13	ITSC	ITSC	30-Apr-04
14	On-Line Vehicle Interactive Management System (Increment 2)	OLVIMS	30-Apr-04
15	Reliability and Maintainability Information System (Increment 2)	REMIS	7-May-04
16	RSMS	RSMS	7-May-04
17	Enhanced Techdata Management Information Systems (Spiral 1)	ETIMS	14-May-04
18	Aeromedical Information Waiver Tracking System	AIMWTS	21-May-04
19	Enhanced ABACUS	ABACUS	28-May-04

Continued on next page



# GCSS-AF Application Migration

## FY 04

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*Sorted by Staging Area Start Date -*

### FY 04 Planned Application Migration - Continued

	System	Acronym	Staging Start
20	Enhanced Techdata Management Information Systems (Spiral 2)	ETIMS	7-Jun-04
21	PEPP	PEPP	11-Jun-04
22	AFRESS	AFRESS	2-Jul-04
23	ABSS	ABSS	23-Jul-04
24	SCRA	SCRA	18-Aug-04
25	Reliability and Maintainability Information System (Increment 3)	REMIS	20-Aug-04
26	Alcohol and Drug Abuse Data System	ADADS	3-Sep-04
27	IT Wellness	IT Wellness	24-Sep-04
28	Manpower Requirements Toolbox	MRT	24-Sep-04
29	DDS	DDS	24-Sep-04
30	CINC 57 Pilots (FAS, CAS, MiLPDS, Finance, Fuel)	CINC 57	30-Sep-04
31	Air Force Medical Service Knowledge Exchange	AFMS kx	24-Sep-04
32	SMART Spiral 7	SMART sp 7	TBD
32	Deployment Qualification System	DQS	TBD
33	Other War Reserve Material Requirements / Spiral 1	OWRMR	TBD
34	IMDS Training Component		TBD
35	Visible Inventory Process	VIP	TBD
37	Live Portal Metrics w/ COGNOS		TBD
38	Congressional Tracking System	CTS	TBD
39	METIS Team Server	METIS	TBD
40	AFDPO ETS Migration	ETS	TBD





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# GCSS-AF Capability Enhancements

**FY 04**

FY 04 Planned Capability Enhancements		
	Capability	Status
1	PureEdge for Forms	13-Feb-04
2	Edge Server Implementation	31-Dec-03
3	EDW Decision Support Tool	31-Dec-03
4	Second NIPRNet Site	31-Mar-04
5	Air Force Portal World Wide Roll Out	15-Mar-04
6	SIPRNet Site	15-Mar-04
7	Single Sign-On (SSO) -( Active Directory / Policy Director Integration)	15-Jun-04
8	SAN Consolidation	31-Jul-04
9	Enterprise Information Management (EIM) - ESC/MM solution	15-Sep-04
10	Enterprise Application Integration (EAI)	15-Sep-04
11	Multiple Application Migration - Outreach	30-Sep-04
12	Reduced Sign-on Migration (RSO-Heavy) - Outreach	30-Sep-04
13	Enhanced Portal Capabilities - Spirals	30-Sep-04
14	Deployed Capability	30-Sep-04
15	COOP / Discover Recovery	30-Sep-04
16	CINC 57 Requirements Implementation	30-Sep-04
17	IF COTs Product Upgrade	30-Sep-04
18	War Fighter Initiatives	30-Sep-04
18a	- Blade Server Pilot	1-Mar-04
18b	- Power Builder Investigation	30-Dec-03
18c	- Provisioning Service	TBD
18d	- Account Auditing Agent	30-Dec-03
18e	- Sub-PC Content Delivery (Wireless)	30-Mar-04



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# Roadmap -- GCSS-AF Application Migration FY 04

~~Sorted by Staging Area Start Date~~

Reduced Sign-On : In Prodction			
	Heavy		"Lite"
1	ACCRSS	1	AFEMS
2	ADADS	2	AFPC Secure
3	AFRESS	3	ECATS
4	ASOC RSS	4	EDW
5	AIWTS	5	ETCA
6	AMC RSS	6	G081
7	APMS	7	ITAM
8	EFIT	8	MP&E
9	ETCA	9	MyPay
10	Fit2Win	10	RAMPOD
11	ITSC	11	SCCOP
12	PACAF RSS	12	Tricare On-line
13	PEPP	13	Public Affairs Portlet
14	RMS	14	MERLIN
15	SCRA		
16	SESS		
17	USAFE RSS		



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# RSO Status - 1

	Application	Organization	Date / Status
<b>Acquisition</b>			
1	AFWay	SSG/SWDWN	Engaged - App agreed to RSO
<b>Chaplin</b>			
<b>Civil Engineering</b>			
<b>Communications</b>			
<b>Comptroller</b>			
2	myPay	SAF/ FMPT	Engaged - 4/1/2004
3	EIDP	SAF/ FMPT	Engaged - App agreed to RSO
4	OIDP	SAF/ FMPT	Engaged - App agreed to RSO
5	EWV	SAF/ FMPT	Engaged - App agreed to RSO
6	LeaveWeb	SAF/ FMPT	Engaged - App agreed to RSO
<b>Contracting</b>			
<b>Health Services</b>			
7	SESS	AFMSA/SGSID	Complete
8	ITSC	AFMSA/SGSID	Complete
9	AIMWTS	AFMSA/SGSID	Complete
10	EFIT	AFMSA/SGSID	Complete
11	SCRA	AFMSA/SGSID	Complete
12	PEPP	AFMSA/SGSID	Complete
13	IT Wellness	AFMSA/SGSID	Engaged - Oct 03
14	AFRESS	AFMSA/SGSID	Engaged - Oct 03
15	ADADS	AFMSA/SGSID	Complete
16	DDS	AFMSA/SGSID	Engaged - Oct 03
17	J MESI	AFMSA/SGSID	Engaged
18	AFMS kx	AFMSA/SGSID	Engaged - Oct 03
19	AFRESS	AFMSA/SGSID	Complete
<b>Legal</b>			
<b>Logistics Plans</b>			
20	Yellow Pages	SSG/ILI	Initial Contact
21	SITREP	SSG/ILIR	Engaged - App agreed to RSO
22	Fleet Asset Status Gadget	SSG/IL	Complete
23	RMS DO72	MSG/SL	Complete
24	DD1000	MSG/SL	Engaged
25	D042	MSG/SL	Engaged
26	Global Freeze Gadget	SSG/IL	Complete
27	APMS		Complete



# RSO Status - 2

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	Application	Organization	Date / Status
<b>Maintenance</b>			
28	CAMS	SSG/ILIR	Engaged - GCSS / App scopping effort
29	SCS		Enaged
30	KXUM		Engaged
31	RSSP		Engaged
32	KDSS		Engaged
33	EMOC		Engaged
34	ITAM	MSG/SLE	Summer 03 - Lite - awaiting second site
<b>Materiel Management</b>			
35	NRTMD	SSG/IL	No status from app
<b>OSI</b>			
<b>Personnel</b>			
36	AFPC Secure	AFPC/DPDXS	Engaged - Pre-production functional
37	ETCA Maintenance	CSS/SCISB	Complete
38	Public Affairs Portlet	PA	Complete
<b>Quality and Manpower</b>			
<b>Safety</b>			
<b>Security Forces</b>			
<b>Services</b>			
<b>Space Support Teams</b>			



# RSO Status - 3

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	Application	Organization	Date / Status
<b>Supply</b>			
39	ACC RSS	ACCRSS/LGSPN	Complete
40	AMC RSS		Complete
41	PACAF RSS		Complete
42	USAFE RSS		Complete
43	SBSS	SSG/LIR	Engaged - GCSS / App scopping effort
44	AFEMS	MSG/SLE	Complete
45	AFSOC RSS		Complete
46	CIRF Gadgets	SSG/IL	Complete
<b>Transportation</b>			
<b>Other / MAJ COM</b>			
47	ASSAT	WRALC/RE	
48	EBS	AFRL/CCI	
49	ESTARS	AFCA/ITCM	
50	ETMS	AFMC/ITXI	
51	Fit 2 Win	CSS/SCYI	Complete
52	gcss-af.com	LMMS	
53	KM - Knowledge Management	AFMC/DRWD	Engaged
54	OpsNet	AFRC/SCO	
55	SSDA	MSG/SIW	
56	Air Force Mission Planning	ESC/AC	Engaged
57	AFKS	GCSS-AF	Engaged
58	AEF On-Line	AEF Center	Engaged
59	AF CIO HUD	AF-CIO	Engaged
60	SFMIS		Engaged
61	ReserveNet		Engaged
62	TPS	AETC	



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# ***How to get on the GCSS-AF Roadmap***

**STEP 1: Locate appropriate questionnaire on GCSS-AF.COM website:**

**RSO Application:** <http://www.gcass-af.com/cfs/rso/index.cfm>

**New Application:**

<http://www.gcass-af.com/cfs/outreach/survey/forms/index.cfm>

**STEP 2: Fill out Survey on the GCSS-AF.COM website that collects pertinent information.**

- Survey is expected to take less than ½ hour (top level information only).

**STEP 3: Once appropriate information is provided the application will be added to the next release of the roadmap (posted monthly on GCSS-AF.COM)**

**STEP 4: Notify ESC (Glen Townsend 781-377-7509, [glen.townsend@hanscom.af.mil](mailto:glen.townsend@hanscom.af.mil)) of changes to your plan.**



# ***Capacity Planning***

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## ■ **Iterative Process**

1. Initial information during Roadmap planning
  - **Number of users, concurrent users, disk space estimates**
2. Once an application is on the roadmap, the capacity planning group updates analysis with more complete information (Forms driven)
  - **Unit test information**
  - **Functional test information**
3. Detail information at GCSS-AF Operations and Support planning meeting
  - **May be able to accommodate changes**
  - **Last chance**



# ***Examples of Information***

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## ■ **System Usage**

- Total number of registered users
- Max number of concurrent users (Simultaneously connected)
- Max number of concurrent active users (Simultaneously executing a transaction)

## ■ **Transactions**

- Max number of OLTP transactions/hour
- Average page size (Kbytes)
- Top five transactions
  - Sequence
  - % of Total
  - Max/hour
  - Avg page size
  - Avg round trips
  - Estimated server processing time
- Max number of reports/queries generated/hour





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# ***So I'm On the Roadmap, Now What?***

- **Initial TIM (recommended)**
  - Survey GCSS-AF
  - Survey application
  - Identify and allocate needed/unprovided services
- **Keep communications flowing**
  - Throughout app development
  - Between app team, Outreach, Integrator
  - Currently primarily via telecons and email
- **Keep the end game in mind!**
  - PPRR, Pre-Production testing, Production
  - Admin and maintenance
  - Enterprise operations

**Identify and Resolve Issues Early!**



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# ***What's Going On In FY04***



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# ***Updating the Outreach Process***

- **Growth in number of Outreach engagements**
  - FY02 = 5-8 apps
  - FY03 = 18+ apps (plus 25+ RSO)
  - FY04 = 31 apps in plan (plus 48 RSO)
    - Quality of service to apps at risk
- **Ops and Support struggling to keep up**
  - Volume of apps coming
  - Apps coming at same time
  - Too much unplanned activity

**Growing fast → We're updating the process to improve service**



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# ***Goal - More Efficient Support***

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- **Targeted engagements**
  - Key points in life cycle
  - Participate in Architecture and Design Reviews
- **Emphasize interface to Integrators**
- **Make use of on-line channels (tech forums, etc.)**
- **Re-looking at periodic communication methods**

**Need Lead Time - Engage Early!**



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# ***Goal - More Self-Service Support***

- **Gcss-af.com and Developer's Guide as main index points**
- **Enhancements to gcss-af.com**
  - Digestible guidance on key topics
  - FAQ's
  - Ask-It's
  - Technical forums
  - Interactive technical lookup
    - By topic
    - By phase of program

**Stand By for News!**



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# ***Goal - Objective Standards***

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- **Improve degree of concrete guidance for apps**
- **Improve ability of apps to understand and self-assess**
- **Help define processes more tightly**
- **Outreach communicates resulting guidance**



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# ***Goal - Increased RSO Support***

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- **Additional Outreach/Ops personnel dedicated to RSO**
  - Spread the increasing RSO setup/test load
- **RSO dedicated Staging/Test environment**
  - Improve RSO setup/test times
  - Reduce conflict with Pre-Production resources



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# ***Goal - More Flexible App Migration***

- **“Pilots” for migrating legacy data into GCSS-AF**
  - Driven by CINC 57
  - Objective to flesh out process and develop guidance
  - Several paths (Event-based, Port to AFKS, Request-Response, etc.) will result in multiple app models
  - Outreach will communicate guidance that results
- **Increased emphasis on concise, usable guidance documents**
  - “Specs”
  - Web-based





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# ***Bottom Line***

- **Responding to lessons learned**
- **Outreach *will evolve* during FY04**
  - Improve responsiveness
  - Increase flexibility
  - Expand pipeline



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## ***Levels of Integration (LOI)***



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# ***Lol Takeaways***

- **Four levels**
  - Defined and assessed by the enterprise
- **Increasing use of enterprise services**
- **Incremental migration path**
- **Achieving Level 4 tied to savings on security process**



# ***Definition Update***

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- **Gen. Croom letter concerning Certificate of Networthiness (CoN) and GCSS-AF “compliance”**
- **Big benefit to becoming GCSS-AF Level 4 (save time and money)**
- **Refocuses concept (“integration” vs “compliance”)**
- **NOT a by-pass, just a different means of satisfying the AFCA-assessed CoN process**
  - GCSS-AF SPO partnered with AFCA to achieve
  - GCSS-AF Pre-Production review and test

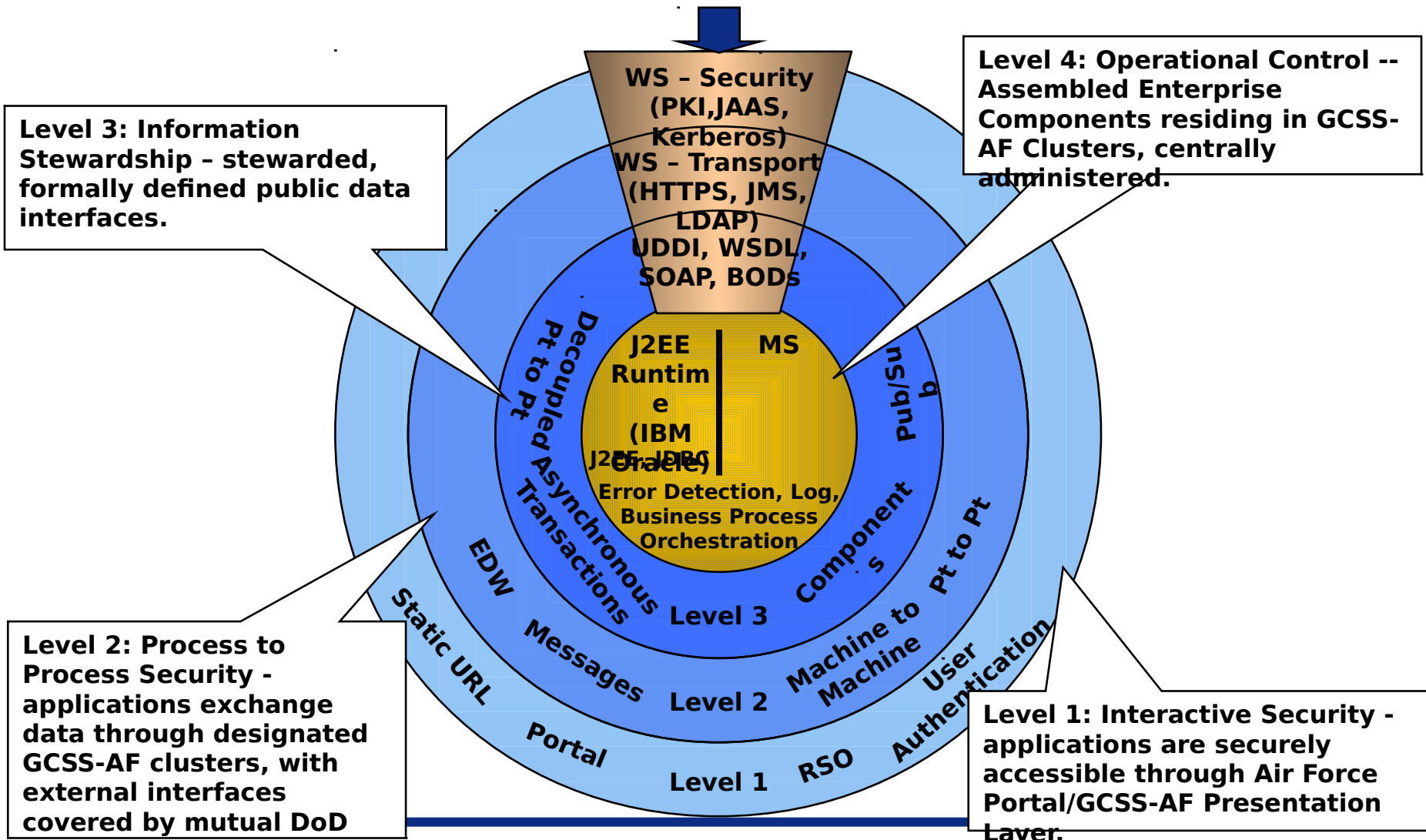
**Still defining details!**



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# LOI Overview

Standard Path In



Version

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# ***Levels of Integration - 1***

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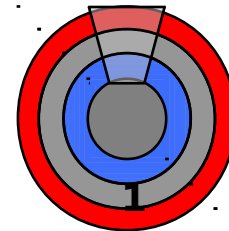
## ■ ***Interactive Security***

- Interactive authentication and session establishment must be done via the GCSS-AF security services. This can be done with individual accounts that are protected by username/password or PKI that are administered in the GCSS-AF User Registry. The administration and control of the application access control is delegated back to the application owner via a web interface
- The application must not have alternative interfaces that grant interactive access to logic and/or data hosted by the framework on behalf of the application

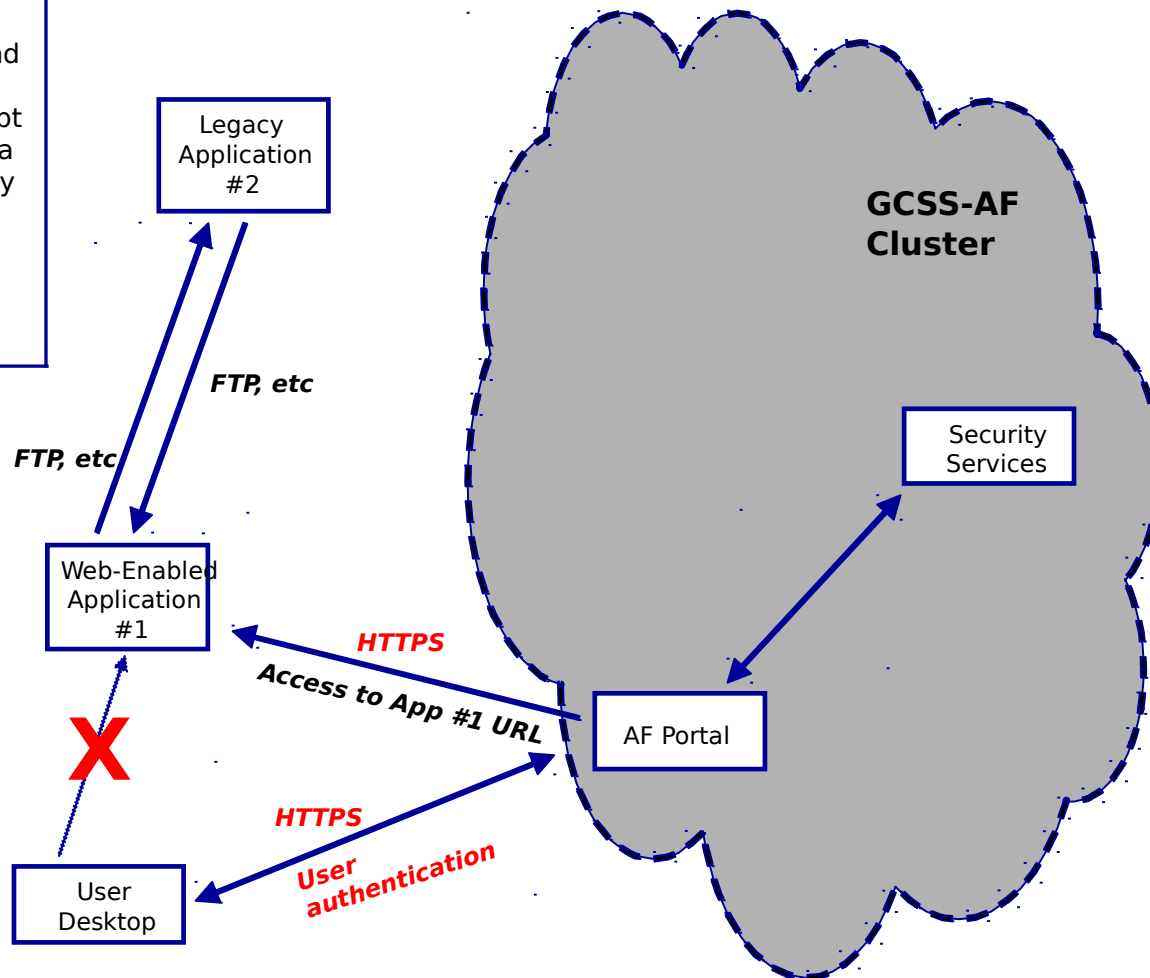


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# Level 1: Interactive Security



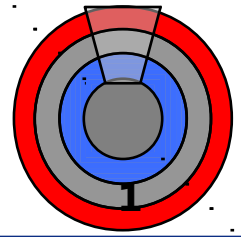
**Level 1** involves linking users to an application through the GCSS-AF Portal and user authentication calls to the GCSS-AF Security Services. Applications can be kept outside of the GCSS-AF cluster, as are data exchanges between applications. The only IF services required for this level are the Portal and the Security Services for enterprise user authentication. Level 1 essentially involves “re-architecting the desktop access”.





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# Level 1 “Takeaways”



**To be Level 1, you must:**

- **Have a link on the Air Force Portal**
- **Have all users authenticated through GCSS-AF**
  - Reduced Sign-On (RSO) to replace back-end authentication
  - Authorization can still be handled internal to the app
- **If app accesses resources in the GCSS-AF cluster, must remove or disable “back door” paths to app logic and data**





# ***Levels of Integration - 2***

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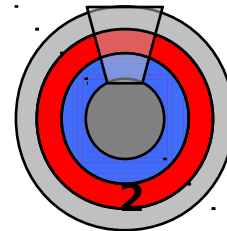
## ■ ***Process-to-Process Security***

- Application logic and/or data level process-to-process authentication between a process under operation control of GCSS-AF and external processes not under the control of GCSS-AF will be mutually authenticated by server certificates issued by DOD-PKI. This connectivity can not be implemented with passwords or self-signed certificates



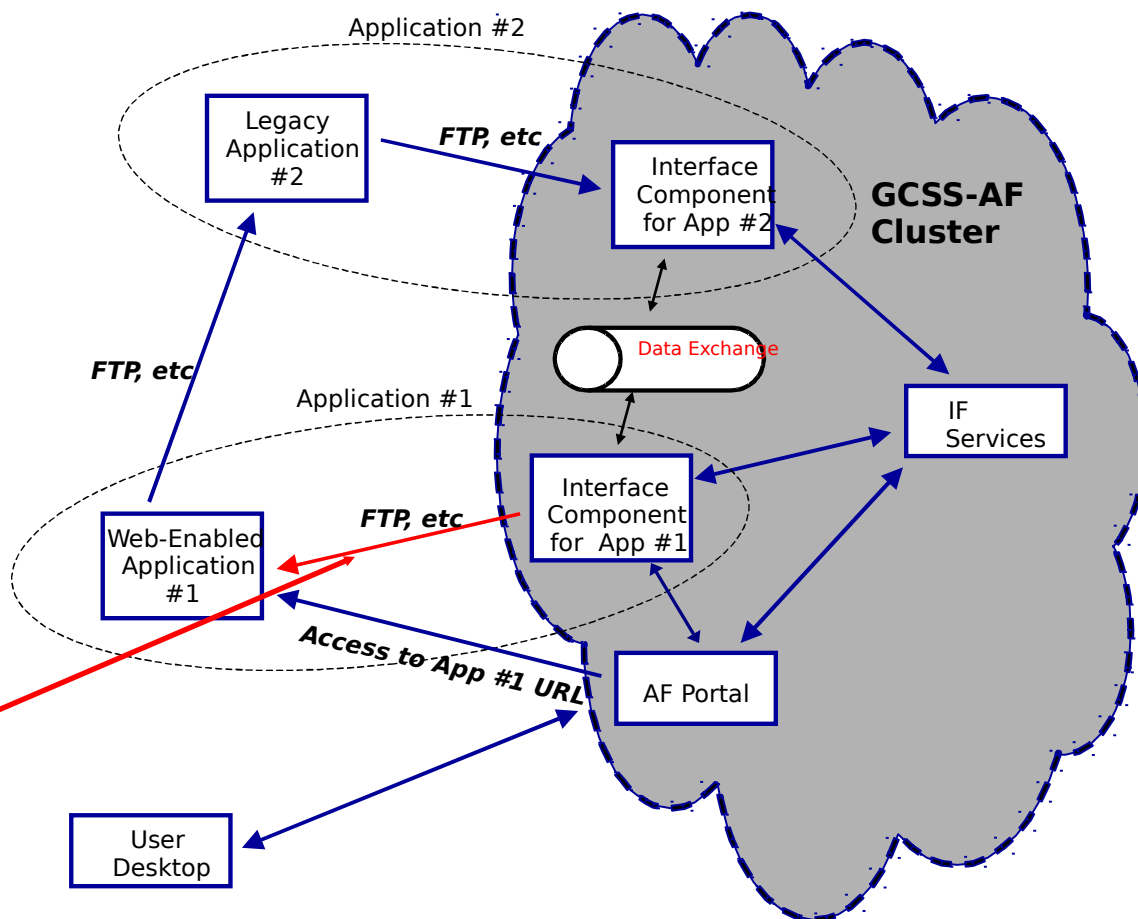
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# Level 2: Process to Process Security



**Level 2** builds on Level 1 by providing application data exchange through the GCSS-AF cluster. Like Level 1, Level 2 links users to the application through the GCSS-AF Presentation Layer and user authentication calls to Policy Director and can keep parts of the application outside of the GCSS-AF cluster. Data exchanged through the GCSS-AF cluster may or may not be formally defined and/or stewarded and can use any protocol and format, but the exchange must be secured by the enterprise. IF services required for this level include those for Level 1 plus Security Services for data exchange (i.e., mapped authentication). Level 2 essentially involves “re-architecting the interface flow”.

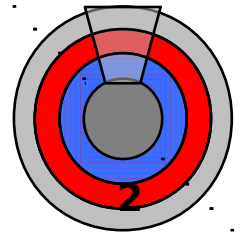
DoD PKI certificate-based Mutual authentication





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# Level 2 “Takeaways”



**To be Level 2, you must:**

- **Satisfy Level 1**
- **Establish certificate-based mutual authentication with external processes (servers)**
  - DoD (AF) PKI certificates on servers
  - Cannot use self-signed certificates
  - Cannot use ID/password



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# ***Levels of Integration - 3***

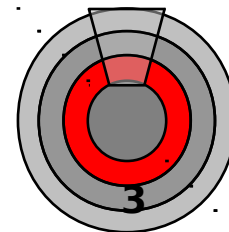
## ■ ***Data Flows Review***

- In order to migrate and support the application, a high-level overview will be developed for each migrating application. Any data flows that are between an application running under the GCSS-AF CON and external environments will meet the DoD Discovery Metadata Standard regarding the documentation of technical connectivity, data content, frequency of transfer, volume of transfer and business purpose. This information will be entered in the GCSS-AF Repository in accordance with the Air Force CIO policy directive to register in the DoD Data Metatag Registry
- The GCSS-AF team will register these data flows on behalf of the application in the DOD Metadata Registry to meet the CIO Policy Directive



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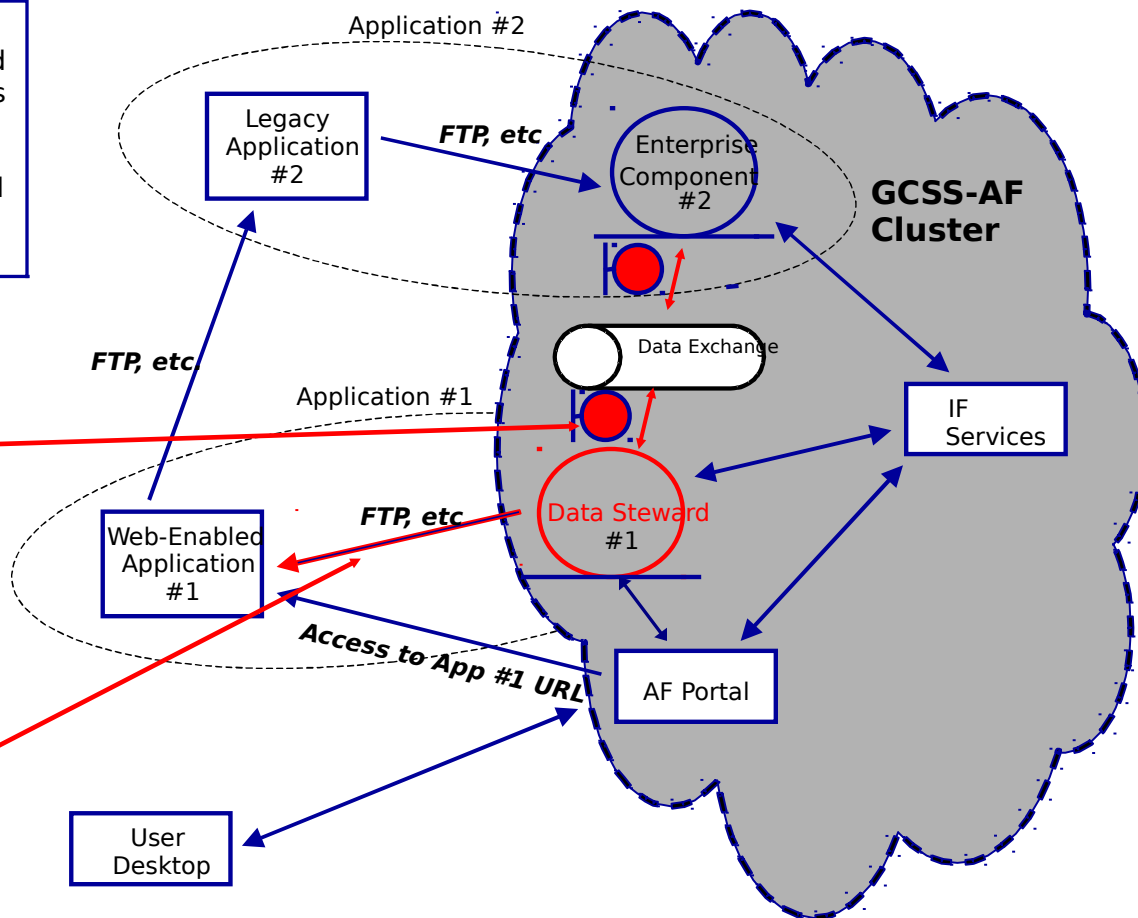
# Level 3: Information Stewardship



**Level 3** is similar to Level 2, except that the data exchanged is now formally defined and stewarded. IF services required for this level include those for Level 2 plus those required for stewarded data. Business Object Documents (BODs) are also involved at this level. Level 3 essentially involves “re-architecting data stewardship”.

Public Interface

Data Flow Reviewed  
And Registered

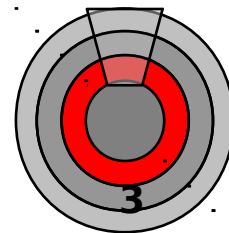




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# Level 3

## ***“Takeaways”***



**To be Level 3, you must:**

- **Satisfy Level 2**
- **Be a formally AF-designated steward (system of record) of at least one type of enterprise data**
  - Stewards are designated by AF functional community authority
  - Present letter/certificate as part of PPRR package
- **Have a public data interface for the data you steward**
  - Formally defined syntax and semantics
  - Where applicable, BOD(s) tested and registered (NIST); present test report as part of PPRR package
  - Exchange data via transactions through the public interface
- **Have data flows to non-GCSS-AF systems reviewed and registered in Meta-Data Repository**



# ***Levels of Integration - 4***

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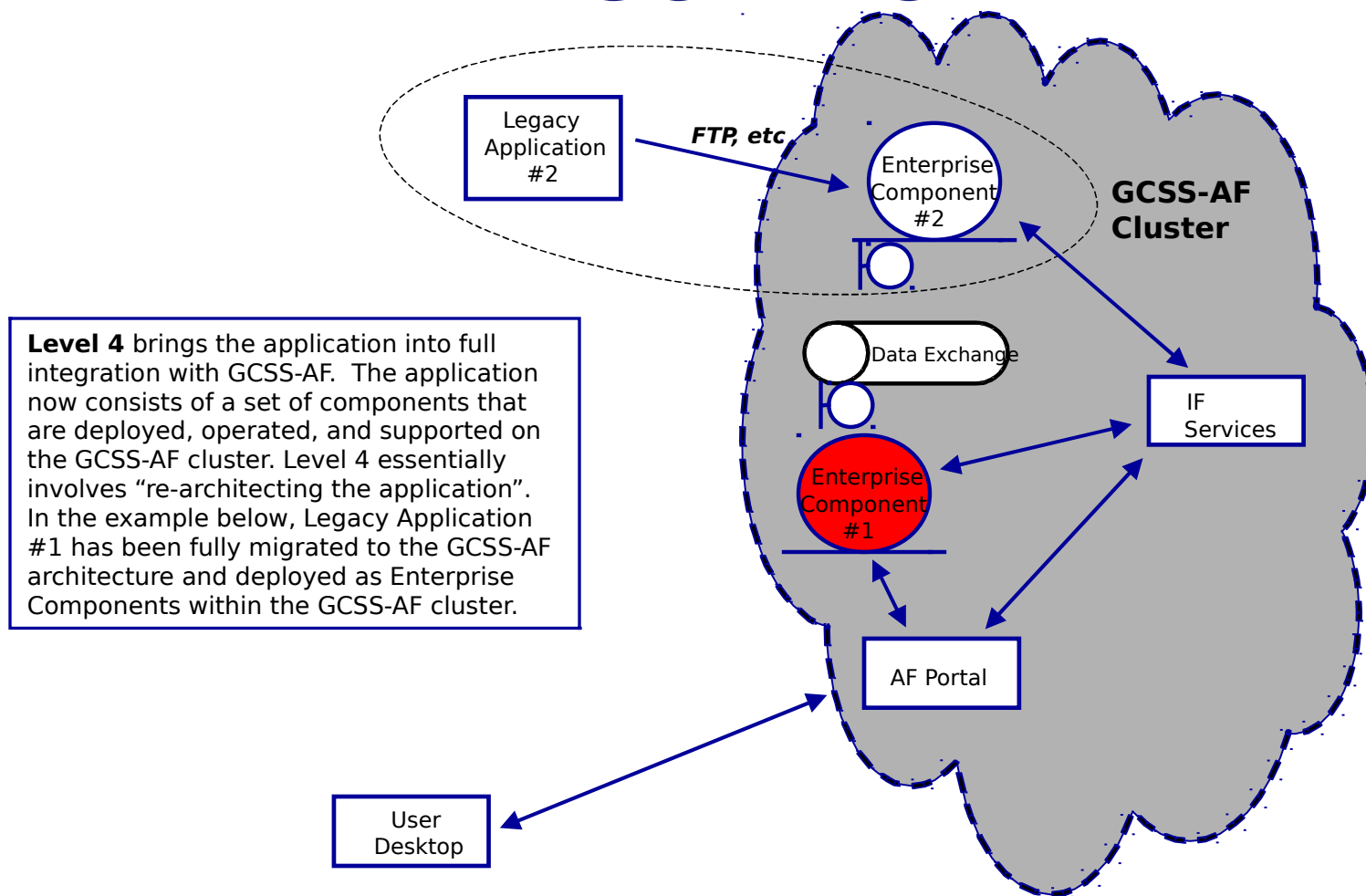
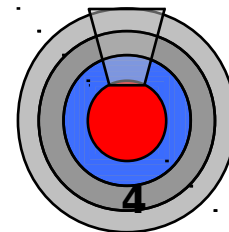
## ■ ***Operational Control***

- In order to be under the framework CON, the application logic and persistent data must be under the operational management and physical control of the framework operations group. GCSS-AF or the program may actually own the platform



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# Level 4: Operational Control

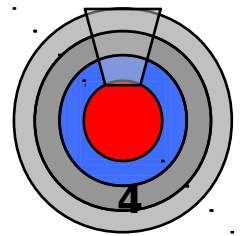






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# Level 4 “Takeaways”



**To be Level 4, you must:**

- **Satisfy Level 3**
- **Be physically resident within a GCSS-AF cluster (enclave)**
  - Can still have external interfaces, so long as they satisfy Level 3
- **Ensure application logic (code) and persistent data are operationally managed and physically controlled by GCSS-AF**
  - Does NOT require GCSS-AF to manage app *function*
- **Business process and warfighter needs determine specific uses**



# *Summary*

- **Responding to CoN letter, partnered with AFCA**
- **Detailed guidance will be forthcoming**
- **Apps that design for GCSS-AF will see reward**
  - CoN/C4ISP process should be shorter, less expensive, easier
  - Data registration with GCSS-AF covers registration with DoD
  - GCSS-AF Level 4 covers standard AFCA CoN



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## **Questions**



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## **Building Clonable J2EE Applications**

**Michael Acton, LMMS**

**GCSS-AF O&S Chief Engineer**

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# ***Productionization***

Application Development Teams generally focus on satisfying functional requirements, not giving enough attention to the production (operational) aspects of application design. It is important to design the application to operate robustly in a production environment.

Applications must be architected and designed for high-availability, performance, and scalability. Applications must be “productionized.”



# ***Overview***

This presentation is intended to provide architects, engineers, managers, and vendors with a high-level understanding of the design issues that must be addressed when building highly-available clonable GCSS-AF applications.



# ***Agenda***

- GCSS-AF Technical Vision
- GCSS-AF Key Terminology
- GCSS-AF Service Anatomy
- GCSS-AF Application Anatomy
- GCSS-AF Application Production Requirements
- GCSS-AF Capacity Analysis
- COOP and Multi-Site Hosting and Fail-Over
- GCSS-AF Lessons Learned
- Data Stewardship
- GCSS-AF Remote Administration



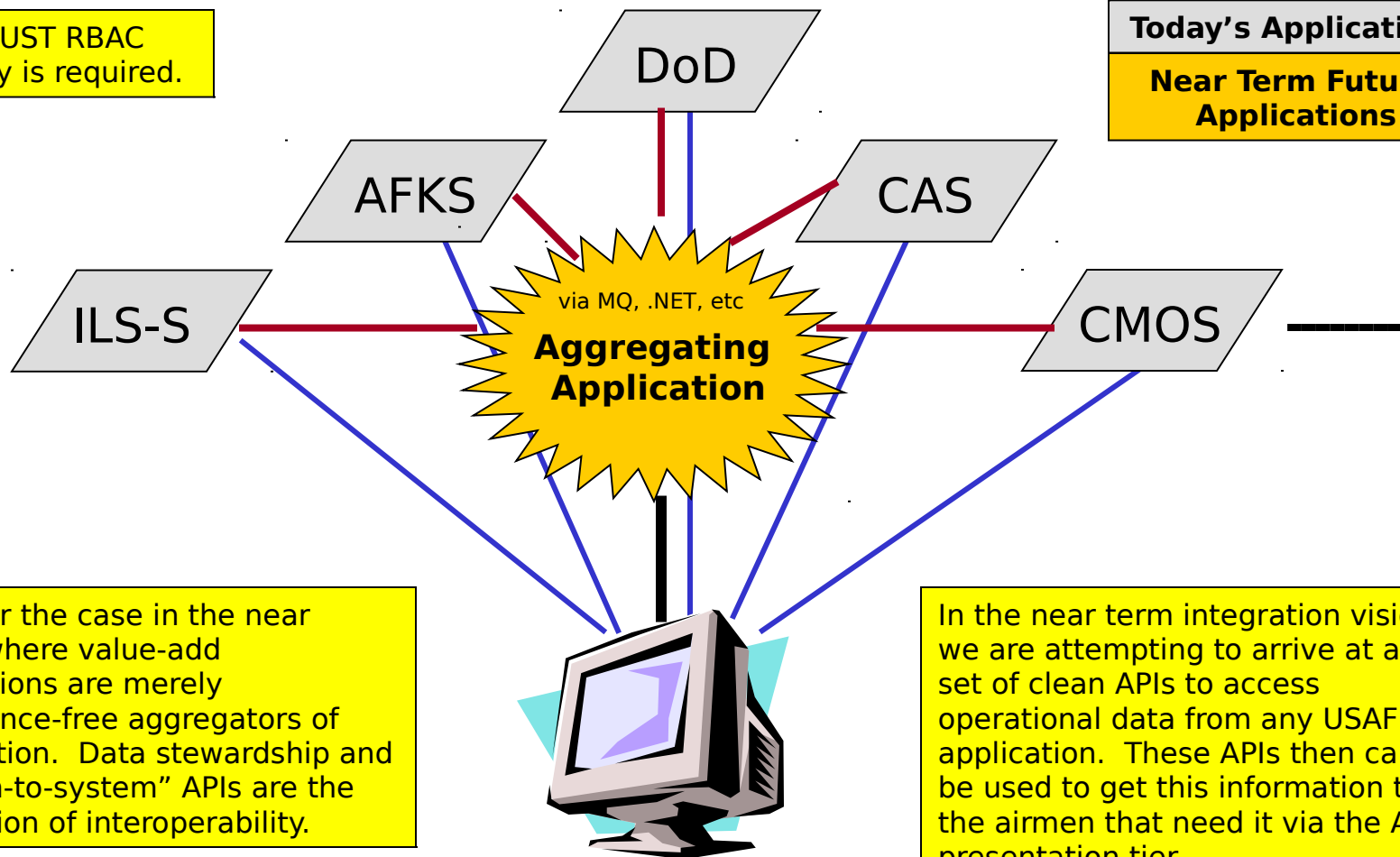
# GCSS-AF Near Term Vision

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ROBUST RBAC  
security is required.

Today's Applications

Near Term Future  
Applications



Consider the case in the near future where value-add applications are merely persistence-free aggregators of information. Data stewardship and "system-to-system" APIs are the foundation of interoperability.

In the near term integration vision, we are attempting to arrive at a set of clean APIs to access operational data from any USAF application. These APIs then can be used to get this information to the airmen that need it via the AFP presentation tier.





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# GCSS-AF Longer Term Vision



System-Level  
Messaging  
Services (APIs)

Event-Driven Message Bus [via MQSeries, BizTalk, .NET, etc]

Applications become  
**collections of reusable  
software components**  
with natural business area  
(domain) boundaries.

AFP Feeder  
Applications

Aggregate  
Application 1

Aggregate  
Application 2

Aggregate  
Application n

AFP



Portals, 3D web  
browsers, and other user  
experience enhancing  
technologies will  
**DELIVER** accurate role-  
protected **INFORMATION**  
to the warfighters that  
need it.

Trusted users get  
the **SINGLE**  
accurate picture  
of the USAF they  
need to perform  
their mission.



# ***GCSS-AF Key Terminology***

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**High-Availability:** HA refers to ensuring that applications are up and running as much as possible. This means that the application is reachable (communications), performing adequately, and that all dependent services that the application relies on are available.

**Fail-Over:** When an unexpected condition is experienced, the service is immediately transferred to a “hot standby.”

**Load Balancing:** When an application has more than one instance running user sessions (or requests) should be appropriately distributed among the available servers.



# ***GCSS-AF Key Terminology***

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**Scalability:** Refers to the capability of an application to provide more service by adding the necessary resources (usually more servers/instances).

**Tiered Architecture:** Application architectures should be strictly tiered for many good reasons. Not only does this preserve the USAF software investment, but also creates an application that can be more easily tuned, optimized, upgraded, and debugged.

**Performance Testing:** Applications should be instrumented internally (with togglable logging) and rigorously tested for performance (under load).



# **GCSS-AF Key Terminology**

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**Orthogonal Services:** Are services that can be combined on shared servers without impacting one another (certifiably so). All software services of GCSS-AF must be orthogonal if they are to reside on a shared server. This extends to application hosting.

**GCSS-AF Service:** A GCSS-AF Service is a technical service that is supported by the GSOC support engineers.

***Examples of GCSS-AF Services:***

*-Oracle 9i DB 9.2.0.3*

*-WebSphere Application Server 4.0.2*

*\*COTS products not designated as "GCSS-AF Services" generally require additional SLAs for operations.*



# ***GCSS-AF Key Terminology***

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**Memory Leak:** Refers to memory that is allocated and not appropriately released after use. For example, developers may create several objects, use them, and forget to properly destroy them. Other leaks occur in faulty COTS application server software. The JProbe memory analysis tool works well for identifying leaks in Java code.

**Stateless Application:** Web applications are stateless when they do not contain any information in memory about the user or transaction (other than the session object). Stateless applications are good because they can be easily cloned and can gracefully fail-over sessions.

***\*Compare to STATEFUL. \*Consider interfacing as well.***



# ***GCSS-AF Key Terminology***

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**Session Affinity:** Session affinity is a term that refers to application configurations where a client is always connected to the same server. Session affinity disables workload management after an initial connection by forcing a client's requests to always go to the same server. This is why session fail-over is important.

**Session Fail-Over:** Session fail-over occurs when the server providing service fails and your entire session is transferred to a new server. There are several types, disk persistence and memory-to-memory are the most common.



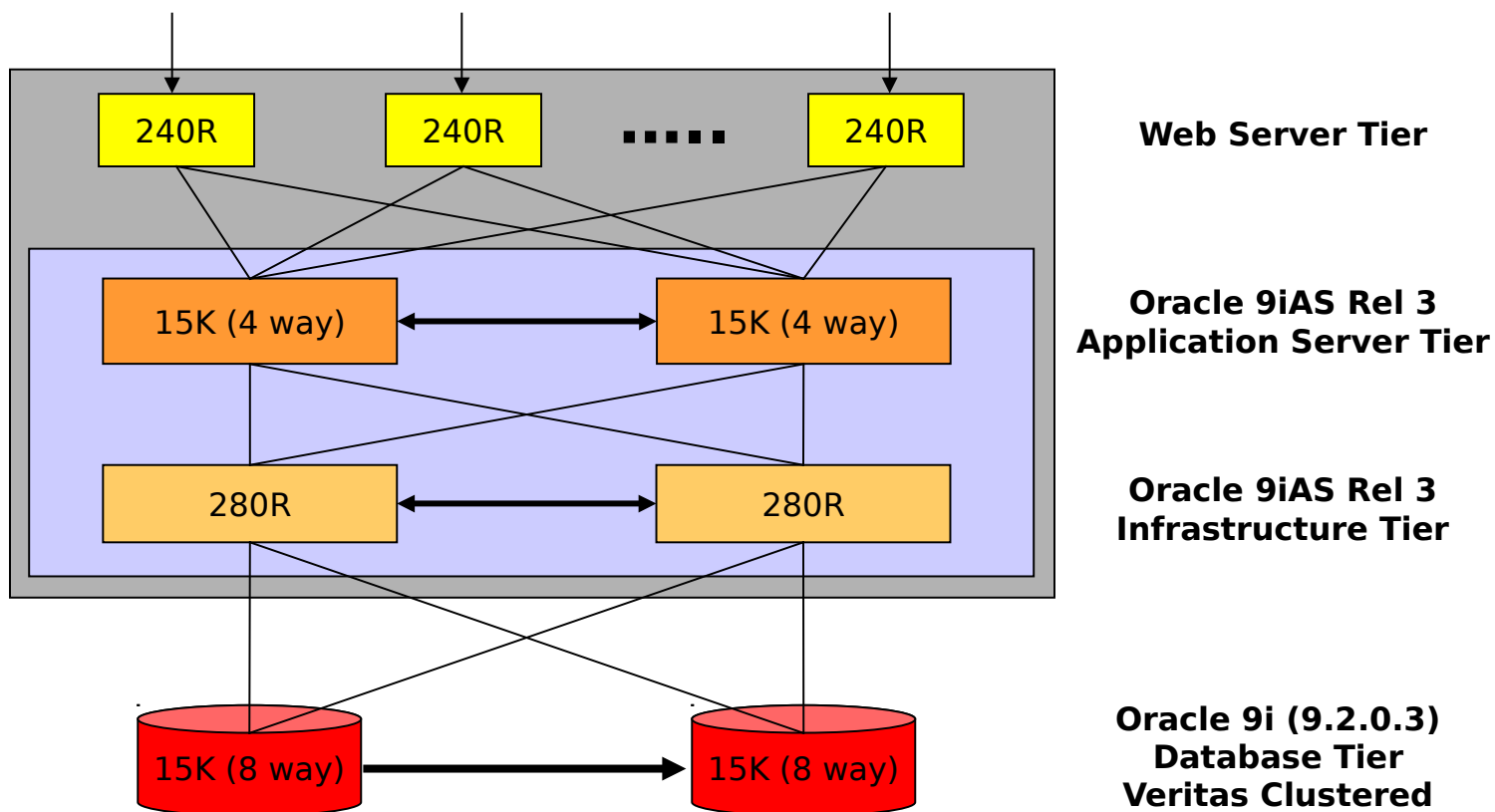
# GCSS-AF Service Anatomy

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## Upper Tiers:

- Load Balancing Layer: Cisco Content Services Switch (x2)
- Security Layer: Tivoli Access Manager 4.1 (x6)

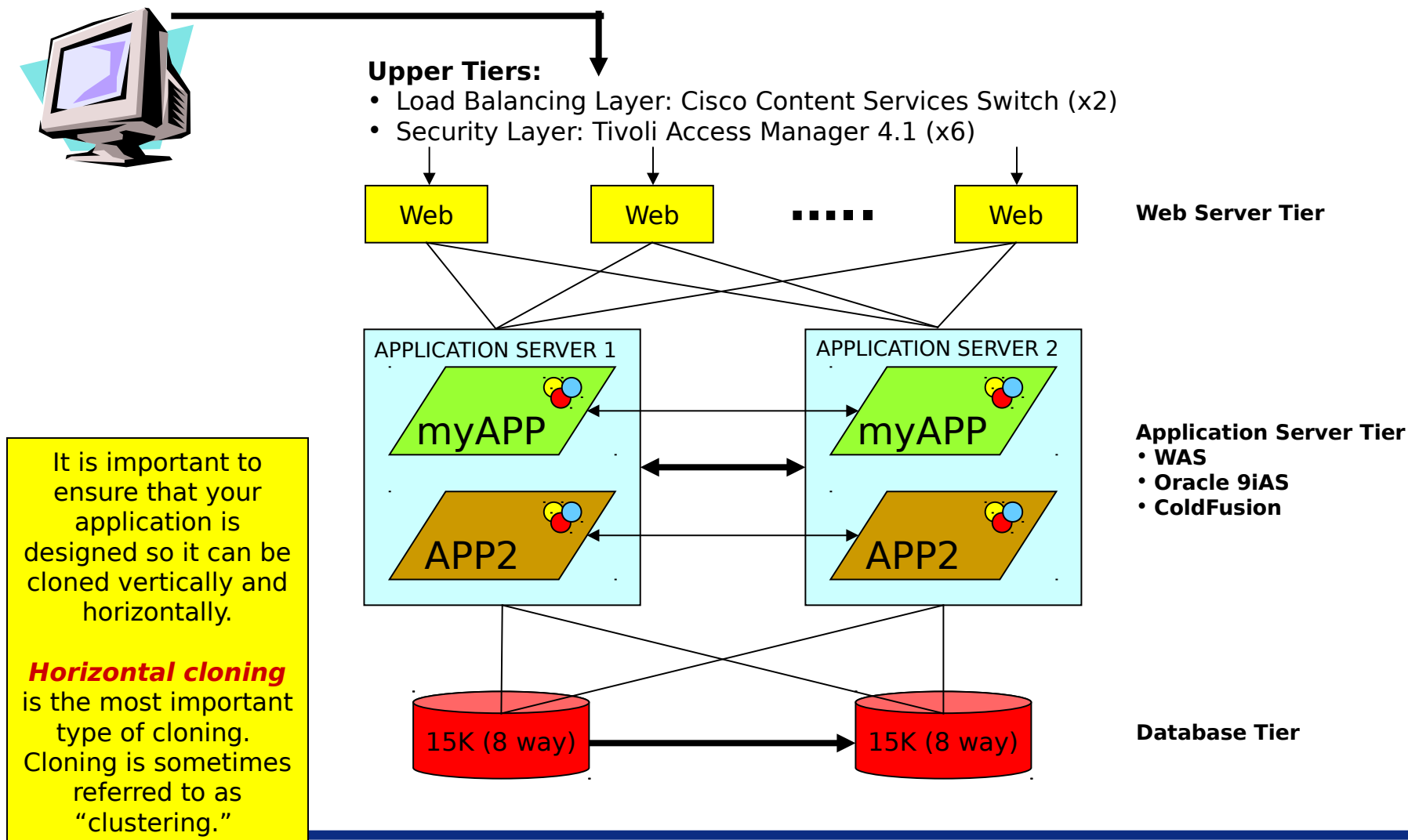
**Ex:** Oracle 9iAS High-Availability Solution (Production)





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# GCSS-AF Application Anatomy







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# ***GCSS-AF Application Requirements***

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## **GCSS-AF Applications Must:**

- Operate in a *Stable* Fashion (free of memory leaks, crashes, etc)
- Be Architected for *Performance*
- Be *Scalable*
- Be *Stateless*\*
- Be *Clonable* (horizontally and vertically)
- Be Built and Tested w/Session Affinity and *Session Fail-Over*
- Be *Well-Packaged for Installation*
- Provide a *Public API* (system-level)
- Comply with *GCSS-AF Standards*
- *Be rigorously Load Tested*
- *Be tested for Memory Leaks*



# ***GCSS-AF Capacity Analysis***

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GCSS-AF Applications must perform a capacity analysis to determine the resources required to host their application and meet the QoS criteria:

- Number of Total Users
- Number of Concurrent Users (average)
- Number of Concurrent Users (peak)
- Required Database Storage Size
- Required RAM
- Uptime Requirements
- Web Page Size Profile (average page sizes)
- Others

*\*Questionnaire available on [gcss-af.com](http://gcss-af.com)*



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# **GCSS-AF O&S Lessons *Learned***

**Horizontal Cloning:** ALL applications, regardless of capacity requirements, should be horizontally cloned (with at least one clone). This ensures service availability. Stateless applications can always be cloned. Stateful applications can sometimes be cloned.

**Memory Leaks:** It is imperative that ALL applications be tested rigorously for memory leaks. Such leaks usually only manifest themselves under a heavy user load. Therefore, a combination of a memory analysis tool coupled with a load testing tool is important. GCSS-AF uses JProbe and LoadRunner.



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# ***GCSS-AF O&S Lessons Learned***

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**Application-Level Logging:** Applications need to be designed with toggable logging to allow logging to be turned on so engineers can tune, optimize, and troubleshoot the application. In production, logging is turned down as low as possible so performance is not impacted. Logging should be typed (ie: performance, functional, security, etc). Logging must write to a file(s).

**Performance Testing:** Application architectures must be strictly tiered so performance bottlenecks can be discerned and eliminated. For example, report generation should not be performed on the application server unless testing demonstrates undeniably acceptable performance and the user base is not likely to increase.



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# ***Technological Posture***

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Technological Posture refers to the application of technology relative to the direction industrial technology is moving.

Technology Posture can be measured to some degree:

- Proper Application of OO Technologies
- Proper Treatment of Data and Persistence
- Proper Use of Proven Design Patterns (MVC)
- Strictly Separating Tiers (Layered Architecture)
- Sound and Complete Application Architecting
- Complexity Controls and Code Quality
- Model Maintained Applications



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# ***Data Stewardship***

Ensuring that data is timely, trusted, and accurate is the responsibility of the data steward.

Data Steward Teams need to ensure that:

- Users Cannot Enter Dirty Data (Application Constraints)
- Interfaces Do Not Allow Dirty Data (Interface Constraints)
- The Public API is Accurate and Operating Correctly (XML BODs)

Data Steward Teams should be comprised of:

- Functional Experts
- Technical Experts
- Data QA Experts



# ***Component Stewardship***

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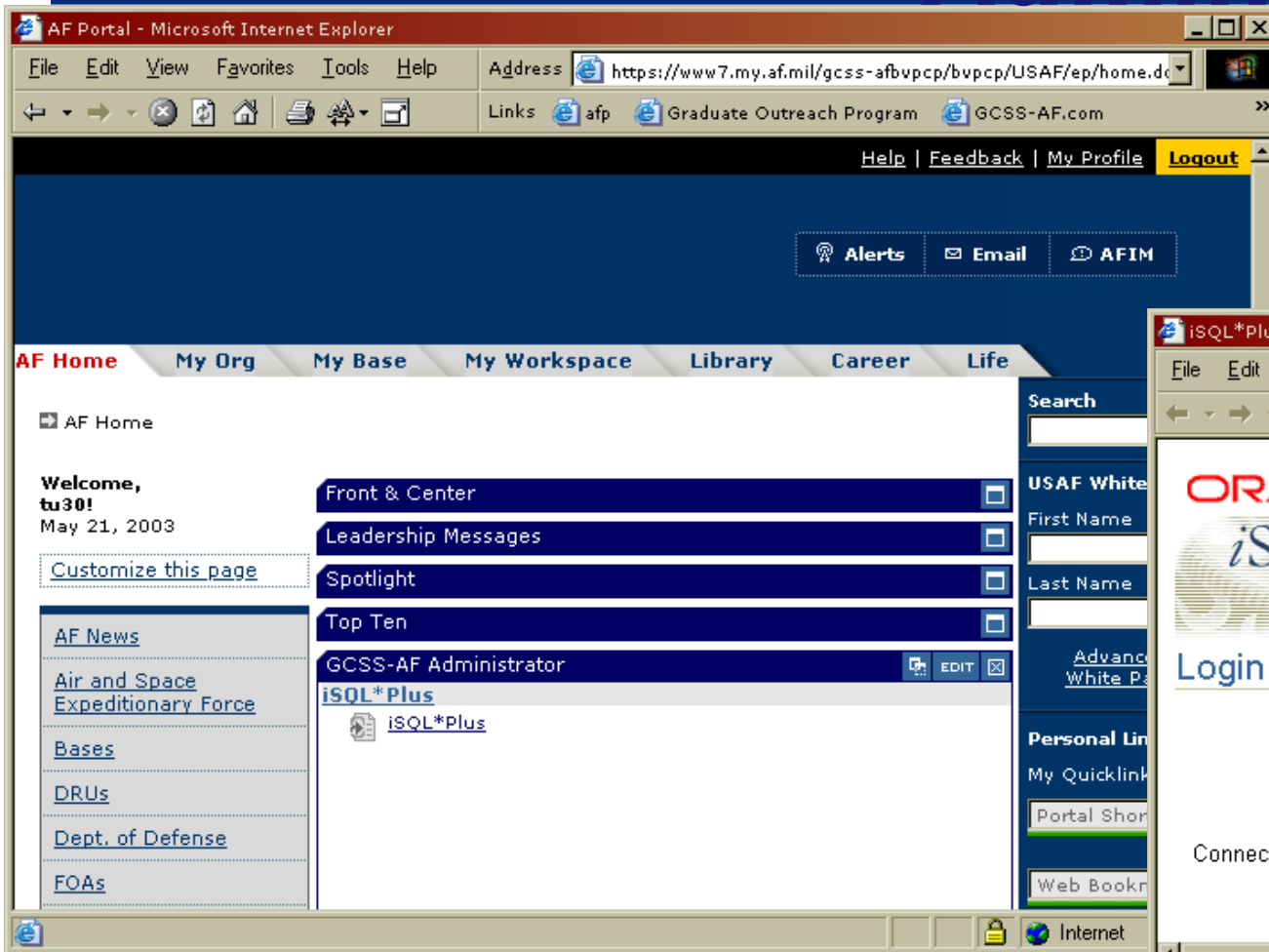
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Similar to data stewardship, it is expected that the USAF will eventually have component stewards as well.



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# GCSS-AF Remote Administration



Remote Administration Services:  
GCSS-AF iSQL Service  
GCSS-AF Web File View Service  
PD Web Portal Manager  
GCSS-AF CM Audit Service







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# **GCSS-AF Oracle iSQL Service**

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## **What is the GCSS-AF Oracle iSQL Service?**

The GCSS-AF Oracle iSQL Service provides application database and functional administrators the ability to interact with their Oracle database instance using a web version of Oracle SQL\*PLUS.

*This service requires that administrators sign on the Air Force Portal via the GCSS-AF Security Subsystem. Assuming the application admin has the appropriate privileges, the GCSS-AF Oracle iSQL hyperlink will appear on their AFP page. Clicking this link launches the service. Administrators MUST know their Oracle username, password AND connect string. These are required for additional security.*

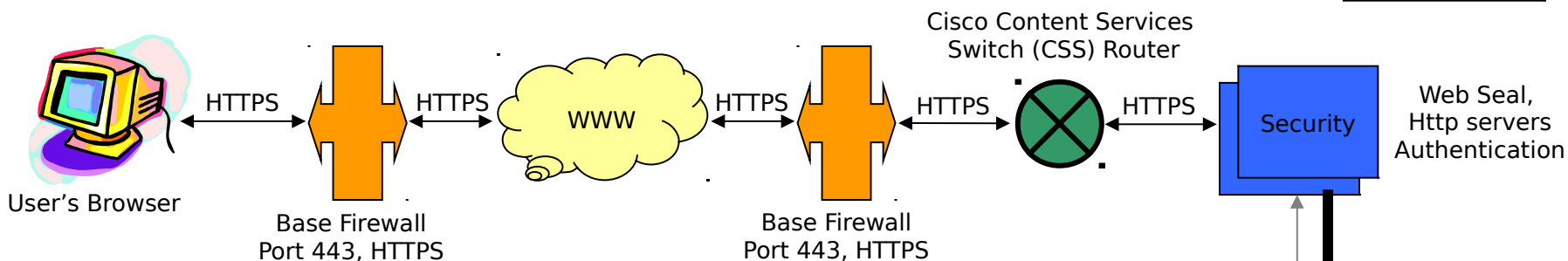


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# GCSS-AF Oracle iSQL Service

## Step 2: Login to the GCSS-AF Oracle iSQL Service

CR-165



4. User clicks on the iSQL\*Plus service link. The user is directed to the Oracle HTTP server that is hosting iSQL\*PLUS.
2. The Oracle HTTP server renders the Oracle iSQL\*Plus logon Screen and is presented to the user.
3. The users enters valid Database userid/password and connection ID Combinations. The Oracle HTTP server invokes the iSQL\*Plus Sever and logs the user into the database, iSQL\*Plus server Acts as a SQL\*PLUS proxy server for the user.



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# GCSS-AF Oracle iSQL Service

iSQL\*Plus Release 9.2.0.1.0 Production: Work Screen - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address <https://www2.my.af.mil/isql/isqlplus> Go Links

**ORACLE**  
iSQL\*Plus

Logout New Session History Preferences Help

Work Screen

File or URL:  Browse... Load Script

Enter statements:

```
select * from emp;
```

Execute Save Script Clear Screen Cancel

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM
7369	SMITH	CLERK	7902	17-DEC-80	800	
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	50
7566	JONES	MANAGER	7839	02-APR-81	2975	
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	140
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	
7789	SCOTT	ANALYST	7566	10-APR-87	3000	

Connected as: SCOTT@9R1\_REGDB

Start | AF Portal - Microsoft Inte... | Document1 - Microsoft W... | iSQL\*Plus Release 9.2... | 7:21 AM

Administrators enter a standard SQL\*Plus command in the "Enter Statements" block and click the "Execute" button.

The result set is returned in a table.



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# **GCSS-AF Web File View Service**

## **What is the GCSS-AF Web File View Service?**

The GCSS-AF Web File View Service is designed to provide applications with file read capabilities. This allows application administrators to remotely view log, interface, and other files that reside within the GCSS-AF Secure Enclave (authorized files only).

*This service requires that administrators sign on the Air Force Portal via the GCSS-AF Security Subsystem. Assuming the application admin has the appropriate privileges, the GCSS-AF Web File View hyperlink will appear on their AFP page. Clicking this link launches the service. Administrators can navigate directories and view any of the files contained in these directories (of course only those files that belong this application).*

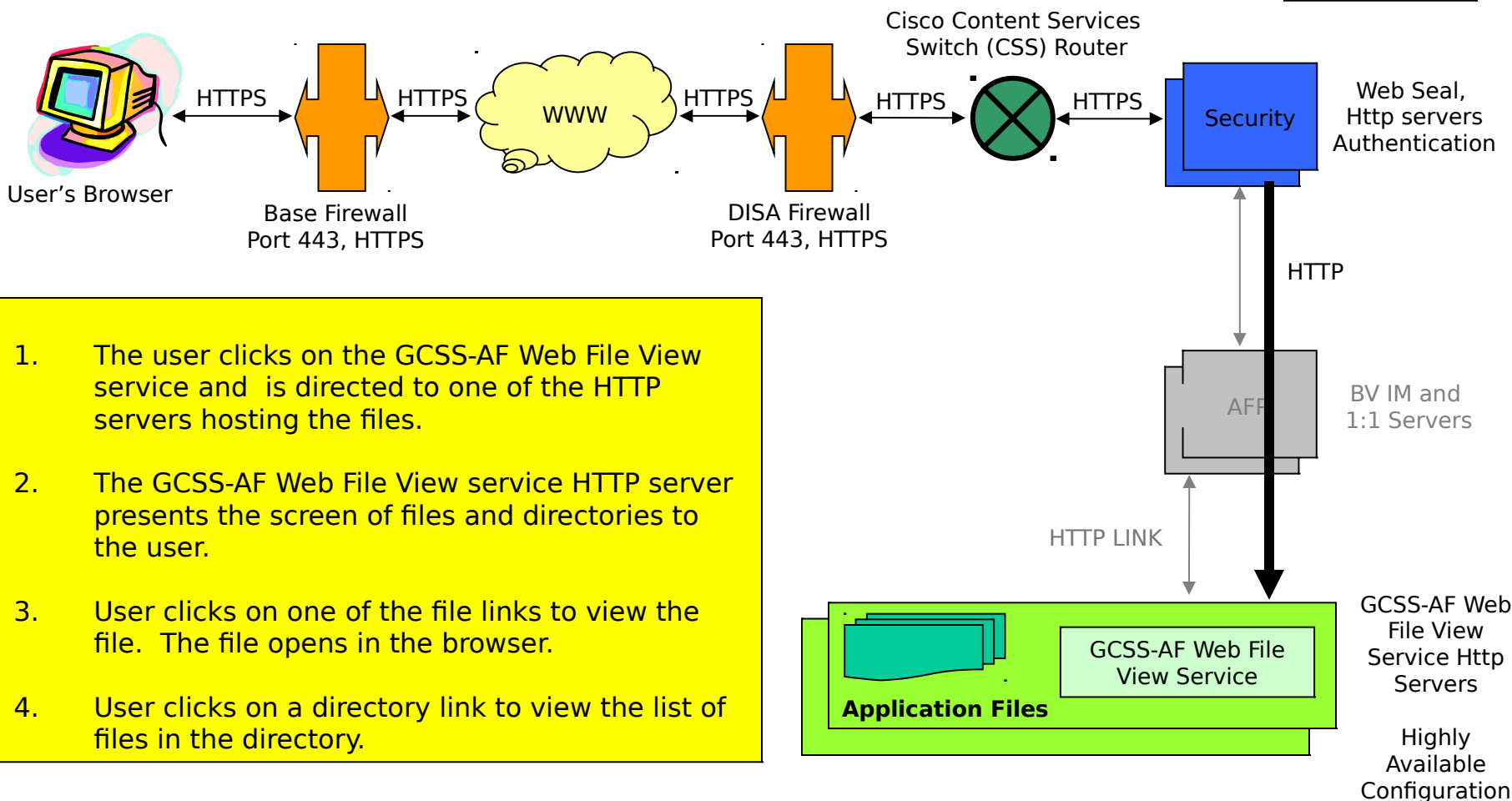


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# GCSS-AF Web File View Service

## Step 2: Login to the GCSS-AF Web File View Service

CR-186



1. The user clicks on the GCSS-AF Web File View service and is directed to one of the HTTP servers hosting the files.
2. The GCSS-AF Web File View service HTTP server presents the screen of files and directories to the user.
3. User clicks on one of the file links to view the file. The file opens in the browser.
4. User clicks on a directory link to view the list of files in the directory.



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# GCSS-AF Web File View Service

AF Portal - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www2.my.af.mil/gcss-af/afp40/USAF/ep/home.do>

Help Feedback My Profile Logout

Alerts Email AFIM

AF Home Career Money Health Travel Life

AF Home

Welcome, rfileadminca!  
May 1, 2003

Customize this page

AF Home Top Ten

- [Operation Iraqi Freedom](#)
- [Military Dress & Personal Appearance](#)
- [Civilian Career Programs](#)
- [AF Golf Directory](#)
- [Armed Forces Vacation Club](#)
- [Public/Private School Locator](#)
- [GSA Travel Site](#)
- [TRICARE Online](#)
- [Virtual Health Coach](#)
- [Military Pay Tables](#)

Communities

[Air Force Communities](#)

- [What is a Community?](#)
- [What is a Project?](#)
- [How Can I Publish Content to the Community?](#)
- [Community Owner's List](#)

Front and Center

[AF Featured Story](#)

[SecDef visits troops](#)

Secretary of Defense Donald Rumsfeld speaks to troops during a meeting in a hangar at Prince Sultan Air Base, Saudi Arabia on April 29. Rumsfeld spoke about Operation Iraqi Freedom, thanked the audience for their contributions and then answered questions. This stop was part of a trip through the region to meet with troops and consult with officials from host nations. (U.S. Air Force photo by Master Sgt. Michael Best)

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Spotlight

[Homepage Spotlight](#)

Have you noticed the changes to your AF Portal? It slipped past you but if you look closely you will realize the graphics have been temporarily removed from the portal to optimize connectivity for our deployed troops. The AF Portal is supporting our warfighters during "Operation Iraqi Freedom" and as we continue to evolve will support all AF users in their day to day activities.

DRUM ROLL PLEASE!!!!

SEARCH HAS COME TO THE AF Portal. You say, search was

Search

Go

USAF White Pages

First Name MI

Last Name

Go

Advanced Search

White Pages Help

Personal Links

My Quicklinks

Portal Shortcuts

Go

Lucas

Google Under Sam

AFMC Knowledge

Management Link

Excite!

FirstGov

Done

Start

My Documents

RemoteFileSystem\_Install...

AF Portal - Microsoft I...

WebFileView-SampleProc...

Internet

9:46 AM



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# GCSS-AF Web File View Service

Index of /RFROOT/CAS/gue25m06/out

Name	Last modified	Size	Description
<a href="#">Parent Directory</a>	25-Apr-2003 13:30	-	
<a href="#">casa_ftp_hist.dat</a>			
<a href="#">casa_ftp_laststatus.dat</a>	25-Apr-2003 16:49	4k	
<a href="#">cmos_ftp_hist.dat</a>	25-Apr-2003 16:49	4k	
<a href="#">cmos_ftp_laststatus.dat</a>	25-Apr-2003 16:49	4k	

The screenshot shows a Microsoft Internet Explorer window with the address bar displaying 'https://www2.my.af.mil/remotefile/RFROOT/CAS/gue25m06/out/'. The main content area shows a directory listing for '/RFROOT/CAS/gue25m06/out'. A red arrow points to the file 'casa\_ftp\_hist.dat' in the listing. The taskbar at the bottom shows several open applications, including 'RemoteFileSystem\_Ins...', 'AF Portal - Microsoft I...', 'WebFileView-SamplePr...', and 'Index of /RFROOT/...'.

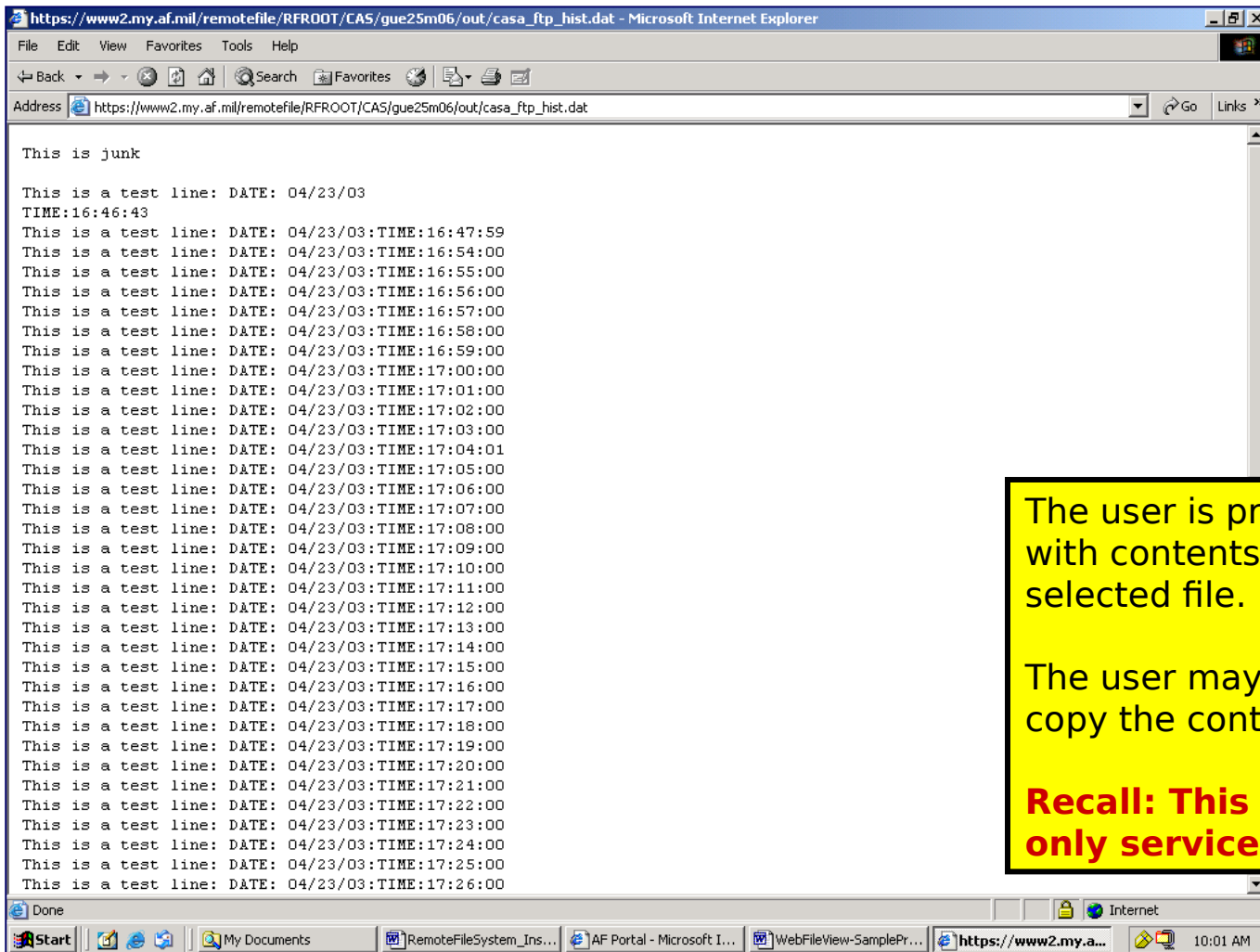
The user is presented with the list of all CAS files in the selected directory.

Next, the user clicks on the file link "casa\_ftp\_hist.dat" to view the file.



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# GCSS-AF Web File View Service



The user is presented with contents of the selected file.

The user may save it, copy the contents, etc.

**Recall: This is a read-only service.**